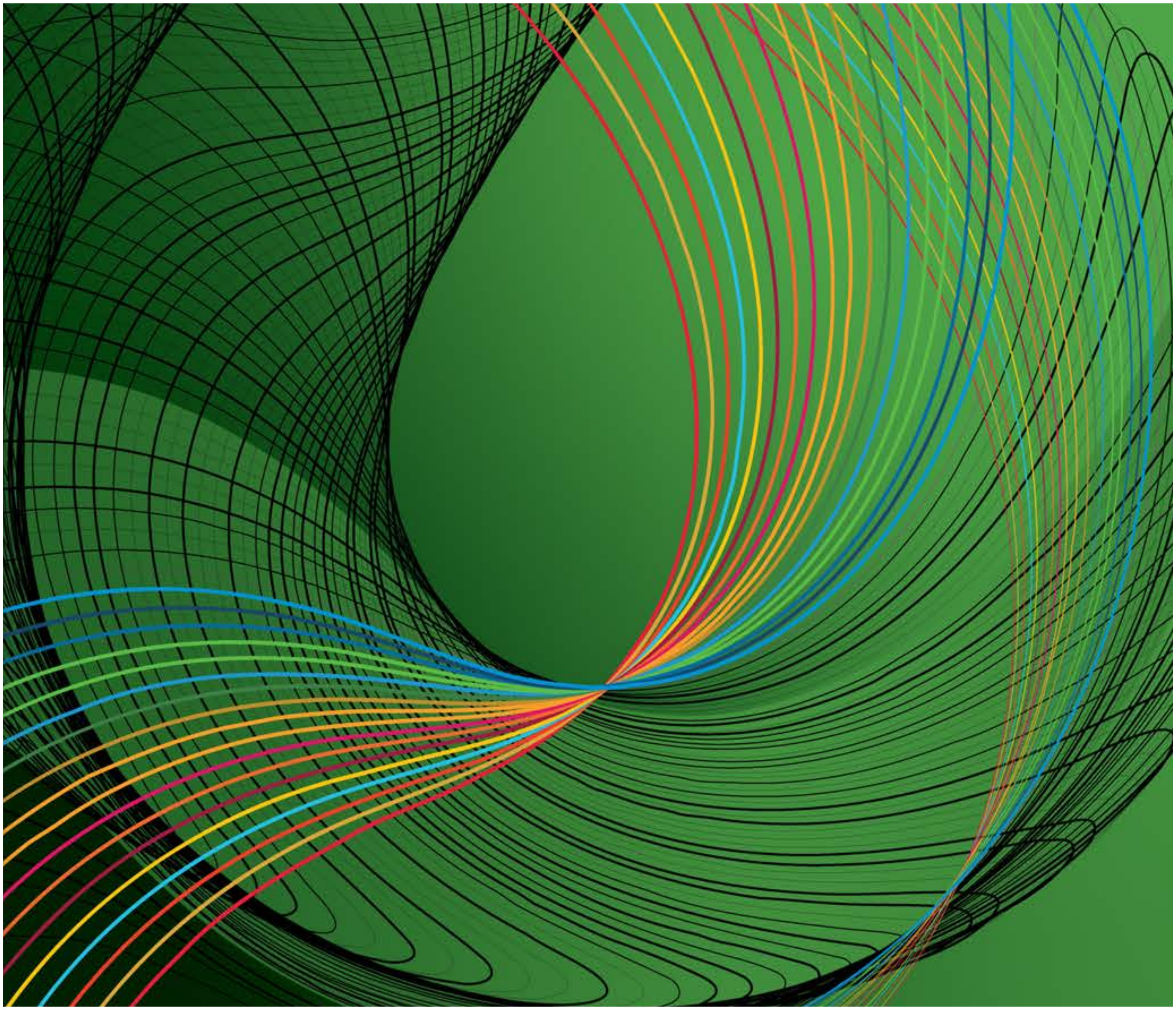

Global status report

on alcohol and health and treatment of substance use disorders

World Health Organization

Global status report
on alcohol and health and treatment of substance use disorders

World Health
Organization

Global status report on alcohol and health and treatment of substance use disorders

ISBN 978-92-4-009674-5 (electronic version)
ISBN 978-92-4-009675-2 (print version)

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Cataloguing-in-Publication (CIP) data. CIP data are available at https://iris.who.int/.

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Graphic design and layout by L'IV Com Sàrl, Switzerland

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Foreword

Psychoactive substance use, including drugs and products containing alcohol, carries a significant health and social burden. In 2019 alone, alcohol caused 2.6 million deaths worldwide, and psychoactive drugs accounted for nearly 600 000 deaths. Psychoactive substance use also results in negative social and economic consequences for communities. As such, the impact of substance use on health and development is recognized in the 2030 Agenda for Sustainable Development, through Sustainable Development Goals (SDG) health target 3.5, which calls for the strengthened prevention of substance use and treatment of substance use disorders.

Dr Tedros Adhanom Ghebreyesus
Director-General
World Health Organization

This report presents a comprehensive global update on the status and progress around the two key indicators set out in SDG health target 3.5: alcohol consumption and treatment coverage for substance use disorders. It sets out eight priority areas where action needs to be taken.

Despite some reduction in alcohol consumption and related harm worldwide since 2010, the health and social burden due to alcohol use remains unacceptably high. Younger people are disproportionately affected by alcohol consumption: the highest proportion of alcohol attributable deaths – 13% – in 2019 was among people aged 20-39 years.

While we have seen a slight increase in the number of countries adopting national alcohol policies, little progress has been made in implementing the high-impact policy interventions proven to reduce alcohol-related harm, such as impactful pricing policies or comprehensive marketing and availability restrictions. The WHO Global alcohol action plan 2022-2030 sets out these 'best buys' and supports countries to strengthen actions on reducing alcohol-related harms, but implementation efforts must be stepped up urgently.

The report also highlights another critical gap: access to quality and ethical treatment for substance use disorders is still largely limited or unaffordable for those most in need. This affects almost half a billion of people worldwide who live with alcohol or drug use disorders. Stigma, discrimination and misconceptions about the efficacy of treatment contribute to gaps in health services and low prioritization of substance use disorders by health and development agencies.

We are not on track to achieve significant progress for SDG target 3.5 unless we accelerate action now. WHO remains committed to working with governments, international partners, civil society organizations and, as appropriate, other stakeholders to make real and measurable progress towards these targets. Given the heavy health and social burden that psychoactive substance use continues to have on people, their families and communities across the world, efforts to reduce psychoactive substance use must be a public health priority.

Acknowledgements

This report was prepared by the Alcohol, Drugs and Addictive Behaviours Unit (ADA) in the Department of Mental Health, Brain Health and Substance Use (MSD) of the World Health Organization (WHO), Geneva, Switzerland. The report was conceptualized by, and developed under the overall guidance of, Dévora Kestel (Director, MSD) and Vladimir Poznyak (Unit Head, ADA) within the framework of WHO activities on global monitoring to inform progress towards achievement of Sustainable Development Goal (SDG) health target 3.5 and implementation of the Global strategy to reduce the harmful use of alcohol. The development of this report is linked to WHO's work on the global information systems on alcohol and health and resources for the prevention and treatment of substance use disorders.

Within WHO's secretariat, Minghui Ren at the initial stage and subsequently Jérôme Salomon provided guidance and support to the project in their consecutive roles as Assistant Director-General, Universal Health Coverage/Communicable and Noncommunicable Diseases (UCN).

Production of this report was led by Vladimir Poznyak who also served as an executive editor of the report. The WHO staff involved in development and production of the report were: Alexandra Fleischmann, Dzmitry Krupchanka and Dag Rekve of the ADA unit at WHO headquarters in Geneva. Ilinca Radu and Jiang Long contributed to the data collection, compilation and production of the report in their capacity as consultants. Juan Tello of the WHO Department of Health Promotion provided technical input to the development of the chapter on alcohol and health. Bochen Cao, Haidong Wang, Jessica Ho and Annet Mahanani of the WHO Division of Data, Analytics & Delivery for Impact (DDI) contributed to the estimates of alcohol- and drug-attributable disease burden and provided technical input at different stages of the report's development. Estimates of drug-attributable disease burden were produced by Colin Mathers. Leanne Riley, Regina Guthold and Melanie Cowan of WHO's Noncommunicable Diseases Department provided data from the WHO-supported surveys and technical input to the report. Kt Friar and Cameron Denney of the DDI division created the maps used in the report, and Philippe Boucher, Zoe Brillantes and Joven Larin of the same division were technical counterparts from the Global Health Observatory for updating the global information systems.

For their significant contributions to individual chapters and annexes we acknowledge the following:

Chapter 1: Robin Room, Megan Cook, Anne-Marie Laslett, Thomas Babor, Vladimir Poznyak.

Chapter 2: Jürgen Rehm, Kevin Shield, David Jernigan, Pamela Trangenstein, Dag Rekve, Vladimir Poznyak.
Chapter 3: Dzmitry Krupchanka, Tomas Formanek, Thomas Babor, Vladimir Poznyak.

Chapter 4: Vladimir Poznyak, Maristela Goldnadel Monteiro, David Bramley.

Annexes: Kevin Shield, Pamela Trangenstein, Alexandra Fleischmann, Dzmitry Krupchanka, Ilinca Radu.

The collection of data within the framework of the WHO global survey on progress on SDG health target 3.5 and the development of this report was undertaken in collaboration with the six WHO regional offices and WHO country offices. Key contributors to the data collection and compilation in the WHO regional offices were:

- WHO African Region: Florence Baingana
- WHO Region of the Americas: Maristela Goldnadel Monteiro, Sohi Ivneet
- WHO Eastern Mediterranean Region: Khalid Saeed, Wafaa Elsawi
- WHO European Region: Carina Ferreira-Borges, Sergey Bychkov, Maria Neufeld
- WHO South-East Asia Region: Nazneen Anwar
- WHO Western Pacific Region: Martin Vandendyck, Caroline Lukaszyk, Kira Fortune, Amy Bestman.

The following colleagues from the WHO regional offices provided technical input at different stages of the project development: Florence Baingana and Chido Ratidzai Rwafa Madzvamutse (African Region), Renato Oliveira and Mario Zapata (Region of the Americas/Pan American Health Organization), Khalid Saeed and Dalia Elasi (Eastern Mediterranean Region), Carina Ferreira-Borges and Maria Neufeld (European Region), Andrea Bruni (South-East Asia Region), Martin Vandendyck, Xi Yin and Dan Fang (Western Pacific Region).

Technical advice and reviews during the process of development of the data collection tool and production of the estimates included in this report were provided by members of the Technical Advisory Group on Alcohol and Drug Epidemiology, including Sawitri Assanangkornchai, Prince of Songkla University, Songkla, Thailand; Guilherme Borges, National Institute of Psychiatry, Mexico City, Mexico; Louisa Degenhardt, National Drug and Alcohol Research Centre, University of South Wales, Sydney, Australia; Gerhard Gmel, University Hospital Centre, Lausanne, Switzerland; Gopalakrishna Gururaj, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, India; Wei Hao, Mental Health Institute, Central South University, Changsha, China; Matthew Hickman, University of Bristol, Bristol, United Kingdom of Great Britain and Northern Ireland; Susumu Higuchi, Kurihama Medical and Addiction Center, Kanagawa, Japan; Pia Mäkelä, Finnish Institute for Health and Welfare (THL), Helsinki, Finland; Isidore Obot, Centre for Research and Information on Substance Abuse (CRISA), University of Uyo, Uyo, Nigeria; Charles Parry, Mental Health, Alcohol, Substance Use and Tobacco Research Unit (MASTRU), South African Medical Research Council, Cape Town, South Africa; Flavio Pechansky, Center for Drug and Alcohol Research, Federal University of Rio Grande do Sul, Porto Alegre, Brazil; Afarin Rahimi-Movaghar, Iranian National Center for Addiction Studies, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran; Jürgen Rehm, Centre for Addiction and Mental Health (CAMH), Toronto, Canada; Ingeborg Rossow, Norwegian Institute of Public Health, Oslo, Norway; Emanuele Scafato, National Centre on Addictions and Doping, Rome, Italy; Tim Stockwell, Canadian Institute for Substance Use Research, University of Victoria, Victoria, Canada; Jallal Toufiq, Moroccan Observatory on Drugs and Addictions, Rabat Faculty of Medicine, Rabat, Morocco.

Technical advice and input to the development of the report and its key messages were provided by the editorial group that included Hamad Al Ghaferi, School of Health and Environmental Studies, Hamdan Bin Mohammed Smart University, Dubai, United Arab Emirates; Sawitri Assanangkornchai, Prince of Songkla University, Songkla, Thailand; Thomas Babor, University of Connecticut School of Medicine, Connecticut, United States of America; Colin Drummond, National Addiction Centre, Institute of Psychiatry, Psychology and Neuroscience, King’s College

London, London, United Kingdom of Great Britain and Northern Ireland; Wei Hao, Mental Health Institute, Central South University, Changsha, China; David Jernigan, Boston University School of Mental Health, Boston, United States of America; Evgeny Krupitsky, Bekhterev National Medical Research Centre for Psychiatry and Neurology, St. Petersburg, Russian Federation; Nazarius Mbona Tumwesigye, School of Public Health, Makerere University, Kampala, Uganda; Maria Elena Medina-Mora, National Institute of Psychiatry, Mexico City, Mexico; Neo Morojele, Faculty of Humanities, University of Johannesburg, Johannesburg, South Africa; Jacek Moskalewicz, Institute of Psychiatry and Neurology, Warsaw, Poland; Pratima Murthy, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, India; Jürgen Rehm, Centre for Addiction and Mental Health (CAMH), Toronto, Canada; Robin Room, La Trobe University, Melbourne, Australia; Kevin Shield, Centre for Addiction and Mental Health (CAMH), Toronto, Canada.

Preparation of the estimates on alcohol consumption and alcohol-attributable disease burden included in the report was a collaborative effort of the ADA unit in the WHO Department of Mental Health and Substance Use with the Centre for Addiction and Mental Health (CAMH), Toronto, Canada. Particular thanks are due to Kevin Shield, Jürgen Rehm, Ashley Whettlaufer and Ari Franklin.

Angela Me, Chloe Charpentier, Hernan Epstein and Kamran Niaz of the from Research and Trend Analysis Branch and Giovanna Campello and Anja Busse from the Prevention, Treatment & Rehabilitation Section of the United Nations Office on Drugs and Crime (UNODC) provided technical input to the chapter on treatment for substance use disorders.

The report would not have been possible without the contributions of the WHO Member States national counterparts for implementation of the Global strategy to reduce the harmful use of alcohol and the country focal points nominated for participation in the WHO survey on progress on SDG health target 3.5 who provided country-level data and other relevant information on alcohol consumption, alcohol-related harm, policy responses and service capacity for treatment of substance use disorders. WHO extends its gratitude to all contributors and reviewers not otherwise stated.

WHO interns who contributed to the process of data collection and compilation include: Sibella Breidahl, Ruchika Jain, Linmiao Jiang, Aanisah KhanzadaJiang.

Finally, WHO gratefully acknowledges the financial support of the National Rehabilitation Centre in Abu Dhabi (UAE) and the Government of Norway for the development and production of this report.

Abbreviations

15+	Population of those aged 15 years and older
AAF	Alcohol-attributable fraction
ABV	Alcohol by volume
AD	Alcohol dependence
ADH1B	Alcohol dehydrogenase 1B
AFR	WHO African Region
AFRO	WHO Regional Office for Africa
AIDS	Acquired immunodeficiency syndrome
ALD	Alcoholic liver disease
AMR	WHO Region of the Americas
AMRO/PAHO	WHO Regional Office for Americas/Pan American Health Organization
APC	Alcohol per capita consumption
ARBD	Alcohol-related birth defects
ARIMA	Autoregressive integrated moving average
ARND	Alcohol-related neurodevelopmental disorder
ASDR	Age-standardized death rate
ASSIST	Alcohol, Smoking and Substance Involvement Screening Test
AUD	Alcohol use disorder
AUDIT	Alcohol Use Disorders Identification Test
BAC	Blood alcohol concentration
BMI	Body mass index
BrAC	Breath alcohol concentration
CAMH	Centre for Addiction and Mental Health
CBT	Cognitive-behavioural therapy
CEA	Cost-effectiveness analysis
CI	Confidence interval
CM	Contingency management
CVD	Cardiovascular disease
DALY	Disability-adjusted life year
EMR	WHO Eastern Mediterranean Region

EMRO	WHO Regional Office for the Eastern Mediterranean
EUR	WHO European Region
EURO	WHO Regional Office for Europe
ESPAD	European School Survey Project on Alcohol and Other Drugs
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	Food and Agriculture Organization of the United Nations (FAO) statistical database
FAS	Fetal alcohol syndrome
FASD	Fetal alcohol spectrum disorder
GBD	Global burden of disease
GDP	Gross domestic product
GENACIS	Gender, alcohol, and culture: an international study
GHE	Global health estimates
GHO	Global health observatory
GISAH	WHO global information system on alcohol and health
GNI	Gross national income
GSHS	Global school-based student health surveys
GSRAH	Global status report on alcohol and health
HAART	Highly active antiretroviral therapy
HCD	Heavy continuous drinking
HCV	Hepatitis C virus
HED	Heavy episodic drinking
HIV	Human immunodeficiency virus
IARC	International Agency for Research on Cancer
ICD	International Classification of Diseases
IHME	Institute for Health Metrics and Evaluation
IHR	International Health Regulations
INCB	International Narcotics Control Board
IWSR	International Wine and Spirits Research
LMIC	Low and middle-income countries
MDGs	Millennium Development Goals
MET	Motivational enhancement therapy
MVA	Motor vehicle accidents
NCD	Noncommunicable disease
NGO	Non-governmental organization

NSP	Needle and syringe programme
OIV	Organisation Internationale de la Vigne et du Vin
OAMT	Opioid agonist maintenance treatment
PAF	Population-attributable fraction
pFAS	Partial fetal alcohol syndrome
PPP	Purchasing power parity
RBS	Responsible beverage service
RR	Relative risk
SACU	Southern African Customs Union
SAMHSA	Substance Abuse and Mental Health Services Administration
SCI	Service capacity index
SDGs	Sustainable Development Goals
SEAR	WHO South-East Asia Region
SEARO	WHO Regional Office for South-East Asia
SES	Socioeconomic status
STDs	Sexually transmitted diseases
STIs	Sexually transmitted infections
STEPS	STEP-wise approach to surveillance
SUD	Substance use disorder
TB	Tuberculosis
UI	Uncertainty intervals
UN	United Nations
UNODC	United Nations Office on Drugs and Crime
UNWTO	World Tourism Organization
USD	US dollar
WHA	World Health Assembly
WHO	World Health Organization
WI	Wine Institute
WPR	WHO Western Pacific Region
WPRO	WHO Regional Office for Western Pacific
YLD	Years of life with disability
YLL	Years of life lost

Executive summary

Chapter 1. Psychoactive substance use, health and development

- In view of the particular properties of psychoactive substances and their impact on health and development, most psychoactive substances require special provisions for regulation of their production, distribution, marketing and use.
- The impact of psychoactive substance use on health and development is determined by multiple socioeconomic, psychosocial and biological factors which need to be addressed in effective prevention, treatment and harm reduction strategies and interventions.
- The impact of alcohol, tobacco and psychoactive drug use on the health of the world's population is unacceptably high by any metric, and for the working age population it exceeds the impact of any other risk factor.
- There is a complex relationship between substance use, alcohol- and drug-related harms and socioeconomic status, and people with lower socioeconomic status are disproportionally affected by harms due to substance use.
- Substance use has a significant impact on mental health, and substance use disorders often co-occur with mental health conditions and worsen their health outcomes, including all-cause premature mortality as well as mortality due to suicides.
- Substance use has a significant impact on the development and outcomes of a number of major noncommunicable diseases, and the global impact of psychoactive drugs and substance use disorders on noncommunicable diseases has to be further explored and documented.
- Injecting drug use continues to be an important driver of epidemics of HIV and viral hepatitis in some populations, and substance use and substance use disorders are associated with an increased risk of acquiring infections and with negative effects on treatment outcomes.
- Substance use and substance use disorders are major contributors to various types of injuries, including traffic- and violence-related injuries. Reducing the number of global deaths due to injuries requires implementation of effective strategies and interventions to prevent injuries associated with alcohol and drug use.
- Commercial determinants of substance use have to be addressed as a part of comprehensive policy responses to reduce the negative impact of psychoactive substance use on health and development in populations.

Chapter 2. Alcohol consumption, alcohol-related harm and policy responses

Alcohol consumption

- Total alcohol per capita consumption in the world population decreased slightly from 5.7 litres in 2010 to 5.5 litres in 2019 (relative reduction of 4.5%) with the highest levels of per capita consumption in 2019 in the WHO European Region (9.2 litres) and the Region of Americas (7.5 litres).

- The COVID-19 pandemic had a significant impact on global alcohol consumption, with an estimated 10% relative reduction from 2019 to 2020 but with different, and sometimes opposite, impacts in different countries and population groups.
- In 2019 56% of the world's population aged 15+ abstained from drinking alcohol – the numbers of drinkers and abstainers in the world are relatively stable over time.
- The level of alcohol consumption per capita among drinkers amounts on average to 27 grams of pure alcohol per day, which is associated with appreciably increased risks of numerous health conditions and associated mortality and disability.
- In 2019, 17% of people aged 15+ years and 38% of current drinkers engaged in heavy episodic drinking or "binge drinking" (consuming at least 60g of pure alcohol on one or more occasions in the last month), while continuous heavy drinking was highly prevalent (6.7%) among men.
- Trends in total alcohol per capita consumption (APC) differ between WHO regions with a substantial decrease in Europe and a marked increase in APC in South-East Asia since 2000.
- In all WHO regions gender differences in alcohol consumption are significant with no major changes over time globally.
- In 2019 the prevalence of alcohol consumption among 15–19-year-olds was unacceptably high worldwide (22%) with very little gender differences and a tendency of increase from initially low levels in some regions.
- Worldwide distilled alcoholic beverages are the leading category in recorded alcohol consumption followed by beer and wines.
- Unrecorded alcohol consumption made up 21% of overall consumption worldwide, and, overall, the wealthier a country or region, the higher the level of consumption and the lower the proportion of unrecorded consumption.

Health consequences of alcohol consumption

- The global burden of disease and injuries caused by alcohol consumption can be quantified for 31 health conditions on the basis of the available scientific evidence for the role of alcohol use in their development, occurrence and outcomes.
- Worldwide, 2.6 million deaths were attributable to alcohol consumption in 2019, representing 4.7% of all deaths in that year.
- The alcohol-attributable disease burden is heaviest among males: 2 million alcohol-attributable deaths and 6.9% of all DALYs among males and 0.6 million deaths and 2.0% of all DALYs among females in 2019.
- The highest levels of alcohol-attributable deaths per 100 000 persons are observed in the WHO African and European regions.
- Globally, an estimated 400 million people, or 7% of the world's population aged 15 years and older, live with alcohol use disorders, and an estimated 209 million (3.7% of the adult world population) live with alcohol dependence, with substantial differences in the numbers of people affected in different WHO regions.
- There has been a decreasing trend in the prevalence of alcohol use disorders worldwide since 2010 driven by decreases in the regions of the Americas, Europe and the Western Pacific, while an increasing trend is observed in the African, Eastern Mediterranean and South-East Asia regions.

- The burden of age-standardized mortality (death rates) and morbidity (DALY rates) from alcohol consumption per litre of alcohol consumed is highest in low-income countries, followed by lower-middle-income countries, and is lowest in high-income countries.
- The health burden expressed in years of healthy life lost due to ill-health or disability from alcohol consumption per litre of alcohol consumed is highest in high-income countries due, in part, to the high prevalence of alcohol use disorders and high rates of ill-health and disability associated with alcohol-related unintentional injuries.
- People of younger age are disproportionately affected by alcohol consumption with the highest proportion (13.0%) of alcohol-attributable deaths from all deaths in 2019 among persons of 20–39 years.
- From 2010 to 2019, the number of deaths attributable to alcohol per 100 000 people decreased by 20.2% – greater than the overall decrease in total deaths worldwide for the same period of time (14.8%); similarly a decrease in the number of alcohol-attributable DALYs lost within the same period (18.3%) was larger than the observed decrease in all-cause DALYs lost (14.0%).

Alcohol policies

- The percentage of countries reporting a written national alcohol policy has increased by 13% over the last decade; in 2019 56% of reporting countries had national alcohol policies in place.
- Almost all of the world's population live in countries that implement alcohol excise taxes.
- Alcohol advertising on the Internet and in social media, the most rapidly growing segment of alcohol marketing, remains largely unregulated.
- Since 2012, the minimum legal purchase age for beer has tended to rise in national regulations worldwide for both on-premise and off-premise sales.
- Remote ordering of alcohol is a new phenomenon that is growing rapidly worldwide but is most common in high-income countries.
- In 2019, 38% of reporting countries required alcohol product warning labels on pregnancy, under-age drinking, drink-driving and/or cancer; the least common of these is cancer.
- Twenty-seven countries, predominantly in the African Region and the Americas, still have blood alcohol concentration limits above 0.05%.
- Most countries reported no progress on the "best buys" in alcohol policy since 2010, signaling the urgent need for action.
- More than wealthier nations, lower-income countries frequently reported insufficient resources devoted to alcohol policy, inability to monitor alcohol consumption and harms, and lack of a national written alcohol policy as the most important barriers and setbacks to alcohol policy development since 2016.
- Member States continued to report interference from the alcohol industry in alcohol policy development: in 2019, two out of every five people lived in a country that reported such interference over the past three years.

Chapter 3. Strengthening treatment for substance use disorders: towards universal health coverage for people living with substance use disorders

Treatment of substance use disorders

- Despite a widespread myth that there is no effective treatment for substance use disorders, effective and cost-effective treatment interventions exist and are recommended by WHO for implementation.
- About 20% of reporting countries do not have any screening and brief intervention programmes for substance use, and 20% of the countries which have them report their availability only in some leading national institutions.
- Although most countries (about 80%) provide specialized services for people with substance use disorders, in about 10% of these countries specialized services are available only for the treatment of acute conditions, and about 5% of countries have no specialized services for treatment of alcohol or drug use disorders.
- In fewer than half of reporting countries, treatment and care programmes and services are available for populations with special treatment and care needs, and more than half of countries do not have provisions for treatment as alternatives to criminal sanctions.
- Pharmacological treatment for people with substance use disorders is available in most reporting countries (81% for alcohol and 82% for drugs). In 10% of reporting countries it is limited to some isolated initiatives in leading national institutions or research programmes, and in 7% of reporting countries pharmacological treatment for people with substance use disorders is not available.
- Availability of medicines recommended by WHO for treatment of substance use disorders varies significantly among reporting countries.
- In about 15% of reporting countries, programmes of psychosocial services and interventions for substance use disorders are provided only in a few leading national institutions or research programmes, and therefore are not available to most people in need.
- Almost half of responding countries do not have mutual help/peer support groups for people living with alcohol and drug use disorders.
- While rehabilitation programmes are available in more than half of reporting countries, the majority of countries do not have special housing services or employment assistance programmes for people with substance use disorders.
- More than half of countries do not report the availability of outreach services for people who use drugs, and about two thirds of countries do not report availability of needle and syringe programmes for people who inject drugs.
- Less than half of countries report the availability of national action plans and policies on the development of treatment of substance use disorders, and less than a quarter of countries report the involvement of representatives of affected and targeted populations in the development and formulation of treatment policies and plans.
- Most countries do not have a specific budget line or data on governmental expenditures for treatment of substance use disorders, and in the majority of countries people with substance use disorders are not eligible to receive governmental non-monetary or monetary support such as disability pensions, housing, educational assistance or subsidies for food.

- About 60% of countries (54% for alcohol and 60% for drugs) have national guidelines/standards of treatment and care public specialized treatment services, and only about half of all countries (46% for alcohol and 53% for drugs) indicate the availability of legal regulations to protect the confidentiality of people in treatment.
- The workforce for treatment of substance use disorders largely consists of psychiatrists, psychologists, social workers and nurses in most countries, while specialized education and training programmes for these professional groups are available only in about half of the countries.

Treatment coverage and Service Capacity Index (SCI) for substance use disorders

- Although effective treatment options for substance use disorders exist, treatment coverage as estimated by different metrics is very low, and the proportion of people with substance use disorders in contact with treatment services varies from less than 1% to no more than 35% in all countries where such data are available.
- About one third of countries do not collect data on epidemiology of substance use disorders, and more than 40% of responding countries do not collect data on service provision and service utilization for treatment of substance use disorders.
- The Service Capacity Index for Substance Use Disorders (SCI-SUD) is proposed as a complementary contextual metric for the assessment and monitoring of treatment capacity of health and social care systems for alcohol and drug use disorders in the context of global monitoring of treatment coverage for substance use disorders.
- Worldwide service capacity for substance use disorders varies significantly between countries with differences ranging more than 20-fold from 0.01 to 0.8, or from 1% to 80% of maximally possible health system elements for the treatment of substance use disorders.
- Service capacity for treatment of substance use disorders correlates with income levels; the lowest service capacity is observed in low-income countries, but there are examples of higher treatment capacity even in countries with lower income levels.

Chapter IV. Conclusions: towards attainment of SDG health target 3.5

- A *coordinated global advocacy campaign* is needed to increase awareness of: 1) the dimensions and impact of substance use and SUD on health and development; and 2) the importance and effectiveness of public health approaches to substance use and related harm.
- The *prevention and treatment capacity of health and social care systems* for health conditions due to substance use should be strengthened as an integral part of Universal Health Coverage and in alignment with SDG health target 3.5.
- Major efforts are needed to accelerate *training of health professionals* at all levels of the health system not only on delivering effective prevention and treatment interventions for health conditions due to substance use, but also effective public health strategies to reduce the health and social burden attributable to substance use.
- The current trends indicate that the global target set for alcohol consumption will not be met by 2030, and achievement of this target will require political commitment, strong advocacy and resource mobilization for the *rigorous implementation of the Global alcohol action plan 2022–2030*, with a focus on the high-impact policy measures included in the SAFER package.

- *International efforts on capacity-building and knowledge transfer* must be rapidly accelerated to enable the development and implementation of effective public health policies and interventions, including strengthening of the networks of country focal points, the relevant staff of health authorities and technical experts.
- Achievement of SDG health target 3.5 requires *active engagement and empowerment of civil society organizations, professional associations and people with lived experience* of substance use disorders and other health conditions due to substance use.
- A strong and comprehensive *multi-level monitoring system and corresponding research capacity and infrastructures* are needed to improve comparable data for tracking progress with SDG health target 3.5.
- *Resource mobilization and allocation and innovative funding mechanisms* should be scaled up to support the development and implementation of public health policies and to strengthen the capacity of health and social systems to address substance use and SUD.

Introduction

The Sustainable Development Goals 2030 (SDGs; UN, 2015) were adopted in 2015 with 17 goals (Box I.1), 169 targets (UN, 2015a), and specified indicators that were developed to monitor and evaluate progress on the SDG goals and targets (UN, 2017) (Box I.1).

Box I.1 The United Nations Sustainable Developmental Goals (UN, 2015)

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Production, distribution and use of psychoactive substances have an impact on practically every goal included in the SDG 2030 Agenda (Room, Cook & Laslett, 2022). However, the goals of good health and well-being (SDG 3) are particularly relevant to psychoactive substances. One of the nine targets for SDG Goal 3 ("Ensure healthy lives and promote well-being for all at all ages") addresses directly the issue of psychoactive substance use and its impact on development (health target 3.5) with two indicators focused on treatment coverage for substance use disorders and alcohol consumption (Box I.2), for which WHO is a custodian UN agency (together with the United Nations Office on Drugs and Crime [UNODC] for Indicator 3.5.1).

Box I.2 SDG health target 3.5 and its indicators

Health target 3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

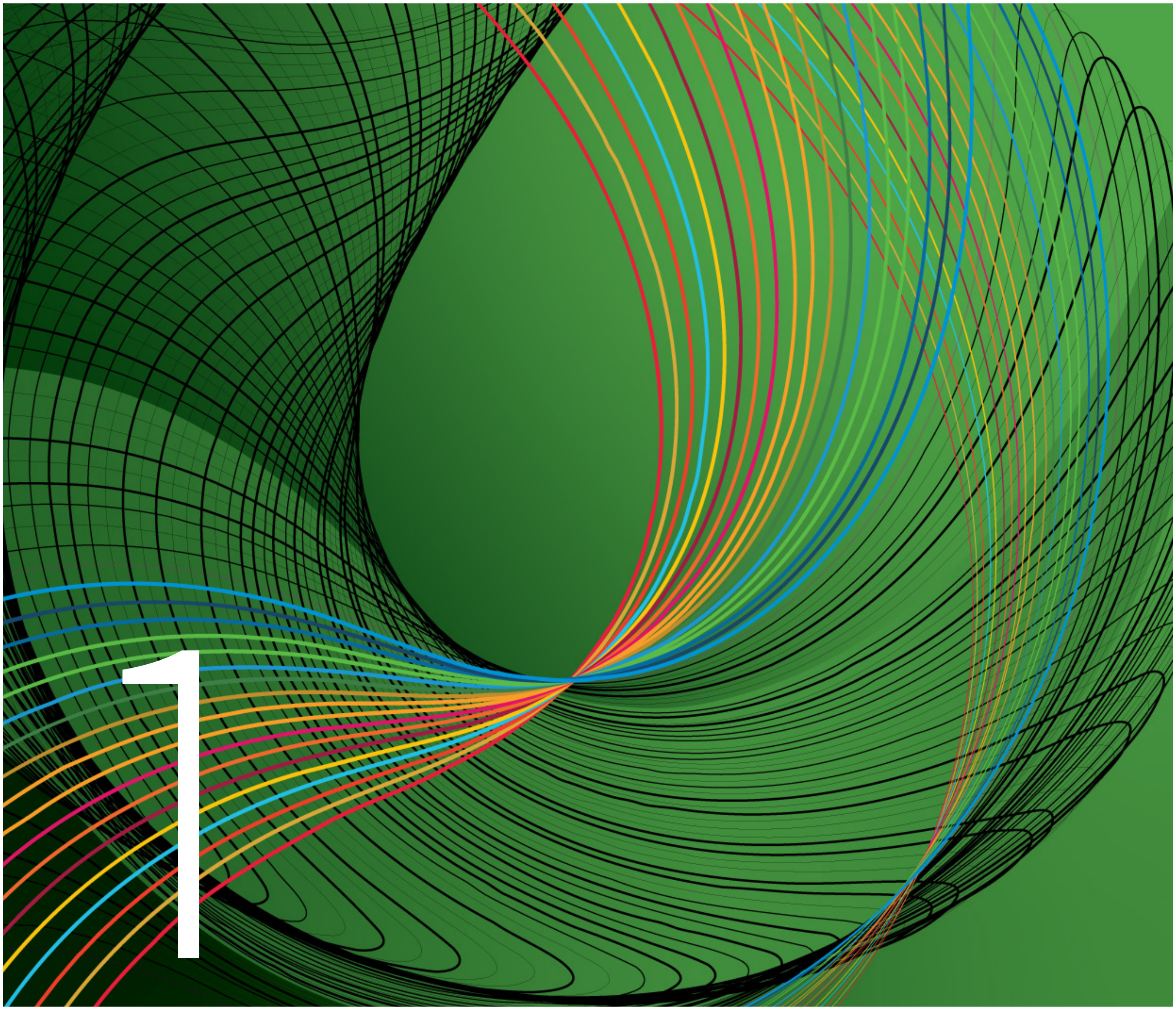
Indicators for health target 3.5:

Indicator 3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders.

Indicator 3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol.

The present report provides a global overview of the situation with regard to substance use and its impact on health and development with a focus on SDG health target 3.5 and its indicators. Chapter 1 sets the scene and presents an update of the global impact of alcohol and drug use on health and well-being. Chapter 2 describes progress achieved in reducing alcohol consumption and alcohol-related harm and in developing policy responses in line with SDG indicator 3.5.2 and in continuation of the series of previous WHO reports on alcohol and health (WHO, 1999; 2001; 2004; 2011; 2014; 2018). Chapter 3 provides data on the treatment of substance use disorders and service capacity for these disorders worldwide that should be considered as additional contextual information for assessing progress in treatment coverage for substance use disorders in line with SDG indicator 3.5.1. Chapter 4 outlines the conclusions and points to opportunities to move forward in reducing the harmful use of alcohol and advancing service provision for substance use disorders in order to achieve SDG health target 3.5. Data sources and methods for producing the estimates included in the report are described in Annex I.

The report is based on the data collected by WHO from its Member States in 2019 before the COVID-19 pandemic had a significant impact on the health and well-being of populations worldwide. While WHO made all efforts to assess the impact of COVID-19 on service provision for mental, neurological and substance use disorders (WHO, 2020; 2022), the data available to WHO as this report was being prepared did not allow for the production of reliable quantitative global data on substance use and its impact on global health during the period of the COVID-19 pandemic (2020–2022). In 2023 WHO began new data collection on progress towards the achievement of SDG health target 3.5 that will ensure continuity in WHO's global monitoring of progress in attaining health target 3.5 by using indicators included in the present report.



1

Psychoactive substance use, health and development

CHAPTER 1

Psychoactive substance use, health and development

Psychoactive substances are defined by WHO as substances which, when consumed or administered, have the ability to change consciousness, mood or thinking processes. Whereas sometimes boundaries of what is considered as “psychoactive” are difficult to delineate clearly, there is a common recognition of the main groups of psychoactive substances – including alcohol, nicotine, opioids, cannabis, cocaine, amphetamines and other stimulants, hallucinogens, hypnotics and sedatives, and psychoactive inhalants.

The specific features of psychoactive substances are associated with the ability of those substances to change how people feel, think and behave – which is a distinctive indication of substance intoxication of different severities – as well as the ability of most of these substances to lead to the development of dependence with impaired control over the use of a substance as one of its main features. In addition, many psychoactive substances can produce toxic effects on human organs and tissues and interfere with regulatory functions, leading to increased risk of development of different health conditions, including mental disorders and noncommunicable diseases such as gastrointestinal and cardiovascular diseases or cancers. Development of substance dependence results in detrimental impact on levels and patterns of substance use and amplifies the damaging effects of psychoactive substance use on health and well-being, including psychosocial functioning.

The main classes of psychoactive substances recognized in WHO nomenclature are included in the 11th revision of the *International Classification of Diseases* (WHO, 2024) (Table 1), and their use may result in multiple health conditions of significant public health importance.

In the socio-legal context there are three main categories of psychoactive substance use, namely: 1) medical use when psychoactive substances are used as medications such as, for example, in the case of sedative, hypnotic or anxiolytic medicines which are used in the treatment of multiple health conditions and several other such medicines which are included in the WHO *Model list of essential medicines* (WHO, 2023f); 2) illegal or illicit use when such use is prohibited under the international drug conventions or national legislation; and 3) legal or licit nonmedical use of psychoactive substances (WHO, 2004).

Table 1.1 Classes of psychoactive substances included in the 11th revision of the International Classification of Diseases (ICD-11) and their main categories of subgroups

ICD-11 classes of psychoactive substances	Main categories or subgroups
Alcohol	Main categories of alcoholic beverages are spirits, wines, beers and ciders.
Nicotine	Main categories of nicotine-based and nicotine delivery products are cigarettes, cigars and cigarillos, pipes, hookah, electronic nicotine delivery systems (ENDS), heated tobacco products (HTPs), chewing tobacco, snus and snuff.
Cannabis	Cannabis, marijuana, hashish, sinsemilla, dabs, wax, edibles.
Synthetic cannabinoids	"Spice", "K2", "K9", JWH-018, AB-CHMINACA, AB-FUBINACA, AB-PINACA.
Opioids	Opium, morphine, codeine, heroin, fentanyl, methadone, buprenorphine, oxycodone, hydrocodone, hydromorphone, tramadol.
Sedatives, hypnotics or anxiolytics	Benzodiazepines (e.g. diazepam, oxazepam, alprazolam, nitrazepam), "Z-drugs" (e.g. zolpidem, zopiclone, eszopiclone, zaleplon), barbiturates (e.g. barbital, pentobarbital, phenobarbital, secobarbital).
Cocaine	Coca leaf, coca paste, cocaine hydrochloride, cocaine base (e.g. "crack").
Stimulants	Amphetamine, dexamphetamine, methamphetamine, methcathinone.
Synthetic cathinones	Mephedrone (4-MMC), methylone, metaphedrone (3-MMC), methylenedioxypyrovalerone (MDPV).
Caffeine	Caffeine tablets, caffeine citrate solution for injections, caffeine-containing energy drinks, caffeine-containing soft drinks, coffee, tea.
Hallucinogens	Lysergic acid diethylamide (LSD), mescaline, psilocybin, dimethyltryptamine (DMT).
Volatile inhalants	Organic solvents, glues, gasoline, nitrous oxide, trichloroethane, butane, toluene, fluorocarbons, ether, halothane.
MDMA or related drugs	Methylenedioxymethamphetamine (MDMA, known as "ecstasy"), methylenedioxyamphetamine (MDA).
Dissociative drugs	Ketamine, phencyclidine (PCP), methoxetamine (MXE).
Other specified psychoactive substances	Khat, kratom, gabapentin, pregabalin, medications with anticholinergic properties (e.g. benztropine).
Unknown or unspecified psychoactive substances	N/a

Within the context of health services and interventions for prevention or management of health conditions due to substance use, the following categories are important for defining health interventions by health professionals:

1) hazardous substance use – when the pattern of substance use appreciably increases the risk of harmful physical or mental health consequences, to the user or to others, to an extent that warrants attention and advice from health professionals, but no overt harm has yet occurred;

2) episode of harmful use – when an episode of use of a psychoactive substance has caused clinically significant damage to a person's physical health or mental health, or has results in behaviour leading to harm to the health of others;

3) harmful pattern of psychoactive substance use – when a sustained (usually over a period of at least 12 months) pattern of use has caused clinically significant damage to a person's physical or mental health, or has resulted in behaviour leading to harm to the health of others; and

4) substance dependence – when there is evidence of impaired regulation of use of a psychoactive substance manifested by impaired control over substance use, increasing precedence of substance use over other aspects of life, and specific physiological feature indicative of neuroadaptation to the substance.

Despite well-documented negative consequences of psychoactive substance use on health, the use of psychoactive substances is common across different populations, and people tend to use psychoactive substances to experience their intoxicating effects, avoid pain or enhance their vigilance or performance. The perceived benefits may not be directly or solely linked to psychoactive properties of a substance, and often attractiveness of psychoactive substance use is driven by surrounding social rituals and expectations. Besides, psychoactive products such as alcoholic beverages, opium, tobacco products or tea and coffee have been attractive commodities throughout history for generating revenues for the state (Austin, 1978; Trocki, 1999; Courtwright, 2002). The role of psychoactive substances in the broad goals of human social and economic development, such as those put forward in the Sustainable Development Goals, has been two-sided, both contributing to and detracting from such development. On the one hand, psychoactive substances such as alcohol and opium have long been attractive and readily marketable commodities which were an important part of government revenue in many countries until the advent of income tax and general sales taxes in the 20th century (Room et al., 2022). Also some narcotic drugs and psychotropic medicines are included in the WHO *Model list of essential medicines*, and alcohol is extensively used in health services as an antiseptic and disinfectant. One the other hand, throughout history the use of psychoactive substances and substance use disorders have been associated with significant health and social risks and an enormous health burden in populations which is the focus of this report.

According to the latest WHO estimates, worldwide in 2019 there were 2.5 billion people above 15 years of age who used alcoholic beverages (see Chapter 2 of this report). It is estimated that, in 2020, 1.25 billion people in the world smoked tobacco (WHO, 2021) and, in 2021, 296 million people aged 15–64 years used psychoactive drugs (UNODC, 2023). There is a significant overlap between the use of alcohol, tobacco and psychoactive drugs.

The impact of psychoactive substance use on health of populations and development is not limited to the impact on population health that is presented in the details for alcohol and psychoactive drugs in this report. The cultivation of plants containing psychoactive substances and the production of psychoactive substances and their distribution and marketing have a substantial impact on the socioeconomic development, security and safety of communities and populations, and may also hamper the achievement of the SDG goals beyond the health targets. The impacts on non-health SDGs such as those on ending poverty (SDG 1), achieving sustainable economic growth (SDG 8) or reducing inequalities between and within countries (SDG 10) are extensively addressed in other documents and publications (WHO, 2018; WHO EURO, 2020; Movendi Int, 2020; UNODC, 2023).

The harms associated with psychoactive substance use occur not only to substance users themselves but often extend to those around them – such as family members, friends or other persons (e.g. victims of intoxicated drivers or children prenatally exposed to toxic psychoactive substances [Laslett A-M et al., 2010; Popova S et al., 2023]). The harms to others can be to their health – such as violence-related injuries, depression, transmission of infections to sexual partners – or may be economic harms such as damage to property or family budgets, or social harms such as community nuisance or insecurity (Karriker-Jaffe et al., 2018).

There is a complex and non-linear relationship between substance use, substance use disorders and crimes; people with substance use disorders are disproportionately represented in the criminal justice system (Bennett & Holloway, 2005; Tomaz et al., 2023). Criminalization of drug use behaviour and the dominance of criminal justice responses to substance use over public health responses and treatment results in overcrowding in prisons and often devastating effects on the lives and well-being of people with substance use disorders (UNODC & WHO, 2019).

Overall, the use of psychoactive substances has impacts on the achievement of multiple SDG health targets and indicators (Table 1.2).

Table 1.2 Selected health targets and indicators for SDG 3 (UN, 2015, 2017) with impacts of psychoactive substance use

SDG health targets		Indicators for SDG health targets		Impact of substance use
3.3	**By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases**	3.3.1	Number of new HIV infections per 1000 uninfected population, by sex, age and key populations	Alcohol and psychoactive drug use increase risk of transmission of HIV/AIDS: alcohol – mainly through increased risk of unprotected sex; drugs – mainly through injection drug use and sharing of injecting equipment. Further, substance use has impacts on treatment outcomes through compromised immune responses and impaired treatment adherence.
		3.3.2	Tuberculosis incidence per 1000 population	Smoking nicotine-containing tobacco products increases the risk of contracting tuberculosis (TB), increases the risk of recurrent TB and impairs response to treatment of the disease. Heavy alcohol exposure and use of psychoactive drugs is associated with increased risk of active tuberculosis. Three-fold increase in the risk of tuberculosis is associated with a diagnosis of alcohol use disorder.
		3.3.4	Hepatitis B incidence per 100 000 population	Injection drug use significantly increases the risks of viral hepatitis. According to WHO estimates presented in this report, viral hepatitis is responsible for the largest proportion of the drug-attributable disease burden among other health conditions.

Table 1.2 *continued*

3.4	**By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being**	3.4.1	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	The impact of alcohol and psychoactive drug use on noncommunicable diseases (NCDs) is described in chapters 1 and 2 of the report. The impact of smoking nicotine-containing tobacco products on NCDs is described in detail in other WHO publications.
		3.4.2	Suicide mortality rate	Alcohol and psychoactive drug use and substance use disorders are associated with increased risk of suicidal ideation, suicide attempts and completed suicides.
3.5	**Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol**	3.5.1	Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	See Chapter 3 of the report.
		3.5.2	Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	See Chapter 2 of the report.
3.6	**By 2020, halve the number of global deaths and injuries from road traffic accidents**	3.6.1	Death rate due to road traffic injuries	The role of driving under the influence of psychoactive substance in deaths and injuries from road traffic accidents is well documented, and the chances of being involved in a fatal road traffic accident have been reported to be higher for those using multiple drugs and/or alcohol.
3.8	**Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all**	3.8.1	Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access, among the general and the most disadvantaged population)	See Chapter 3 of the report. Treatment for substance use disorders is not included on the list of tracer interventions for estimation of coverage of essential health services.
		3.8.2	Proportion of population with large household expenditures on health as a share of total household expenditure or income	See Chapter 3 of the report.
3.9	**By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination**	3.9.3	Mortality rate attributed to unintentional poisoning	See Chapter 2 of the report.
3.A	**Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate**	3.A.1	Age-standardized prevalence of current tobacco use among persons aged 15 years and older	Nicotine is a dependence-producing psychoactive substance in tobacco products. See WHO, 2023b.

Table 1.2 *continued*

3.B	**Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all**	3.B.3	Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis	Accessibility and affordability of essential medicines for treatment of disorders due to substance use (see Chapter 3 of this report) are not included in producing the estimates for this indicator.
3.C	**Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States**	3.C.1	Health worker density and distribution	See Chapter 3 of this report.

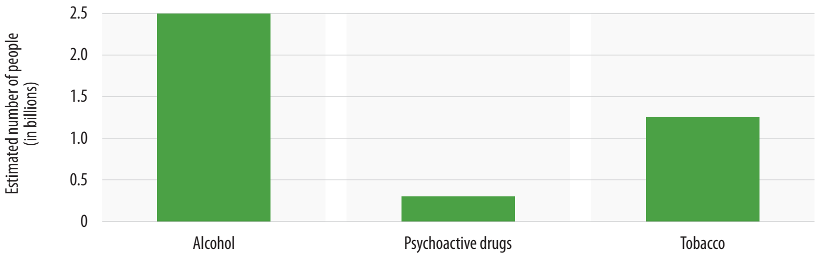
Sources: UN, 2017; UNODC, 2023; WHO, 2010a; 2018; 2023.

1.1 In view of the particular properties of psychoactive substances and their impact on health and development, most psychoactive substances require special provisions for regulation of their production, distribution, marketing and use

Psychoactive substances, although commonly used worldwide (Figure 1.1), are "no ordinary commodities" (Babor et al., 2010). Throughout recorded human history they tend to have been assigned special statuses rather than being handled as ordinary comestibles or commodities. It has been common for particular psychoactive substances to be banned from production, sale and use (e.g. alcoholic beverages in some cultures or some psychoactive drugs under international or national control); to be confined to use by particular population categories (e.g. adults), or for particular purposes (e.g. as a prescription medicine); and their availability to be controlled (e.g. by a state monopoly or a licensing system) (Room & Hall, 2017).

The production, distribution, marketing and use of major classes of psychoactive substances and their precursors, as well as nicotine-containing tobacco products, are regulated by international legally-binding treaties (Box 1.1). Alcohol remains the only psychoactive and dependence-producing substance that exerts a significant impact on global population health and development and is not controlled at the international level by legally binding regulatory instruments.

Figure 1.1 Estimated number (in billions) of people using tobacco, alcohol and psychoactive drugs



Sources: WHO, 2021; 2024; UNODC, 2023.

Box 1.1 International regulation of psychoactive substances with a significant impact on the health of populations

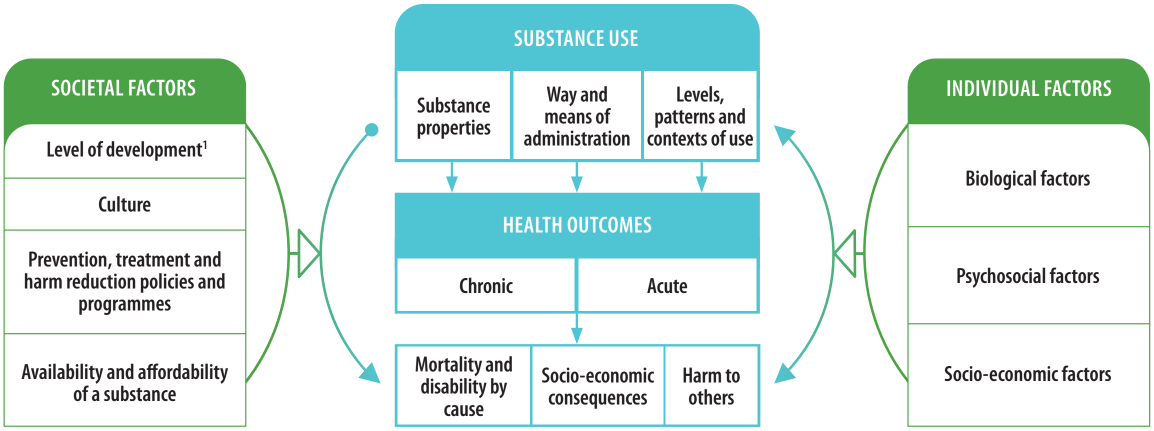
Psychoactive substances	Existing international legally binding treaties	Number of countries that ratified the treaties as of 2023
Narcotic drugs (cocaine, cannabis, heroin)	Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol	186
Psychotropic medicines (belonging to classes of benzodiazepines, amphetamines or opioids)	Convention on Psychotropic Substances, 1971	184
Narcotic drugs and psychotropic substances	United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988	191
Nicotine and tobacco products	Framework Convention on Tobacco Control (FCTC)	182
Alcohol and alcoholic beverages	None	N/A

1.2 The impact of psychoactive substance use on health and development is determined by multiple socioeconomic, psychosocial and biological factors which need to be addressed in effective prevention, treatment and harm reduction strategies and interventions

The impact of psychoactive substance use on the health and well-being of people, communities and populations is mediated by several mechanisms that depend on: 1) the intoxicating, dependence-producing and toxic properties of substances: 2) the levels and patterns of substance use and ways of substance administration (drinking/swallowing, injecting, inhaling etc.); and 3) the broader socioeconomic factors such as commercial determinants, alcohol and drug control policies and interventions, criminal justice responses, demographic and morbidity profiles, and the development of health and social care services and programmes.

Several major factors have an impact on levels and patterns of substance use in populations – such as historical trends in substance use, the availability of psychoactive substances, culture, economic status and trends in the marketing of licit substances, as well as implemented policy measures that aim at reducing the harm due to psychoactive substance use. At the individual level, any substance use and patterns and levels of use are determined by many different factors – including gender, age, individual biological, psychosocial and socioeconomic vulnerability factors, cultural norms and the overall policy environment. The conceptual model of the impact of psychoactive substance use on health is presented in Figure 1.2.

Figure 1.2 The conceptual model of impact of psychoactive substance use on health


SOCIETAL FACTORS
Level of development[1]
Culture
Prevention, treatment and harm reduction policies and programmes
Availability and affordability of a substance
SUBSTANCE USE
Substance properties
Way and means of administration
Levels, patterns and contexts of use
HEALTH OUTCOMES
Chronic
Acute
Mortality and disability by cause
Socio-economic consequences
Harm to others
INDIVIDUAL FACTORS
Biological factors
Psychosocial factors
Socio-economic factors

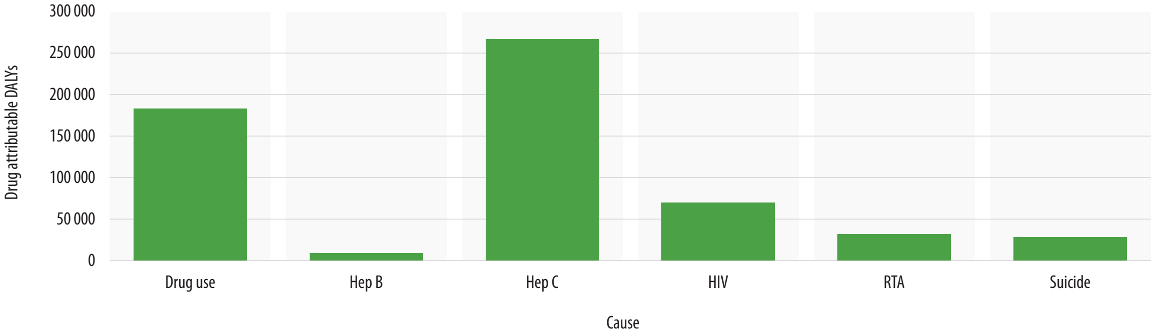
[1] Development of health and welfare system, and economy as a whole.
Source: Based on Rehm et al., 2010 and Blas et al., 2010).

Successful prevention strategies and interventions should address not only the above factors but also the factors which determine access to prevention, treatment, harm reduction and rehabilitation services and interventions as well as their quality. The legally binding mechanisms of international control of psychoactive drugs and regulation of tobacco products address some key factors which determine the availability, accessibility and affordability of psychoactive substances. The international drug control conventions also address the need for making controlled medicines and substances available for legitimate medical and scientific purposes. The non-binding Global strategy to reduce the harmful use of alcohol (WHO, 2010a) provides the overall guidance for the main objectives and components for global action as well as target areas for national action, including high-impact interventions summarized in the WHO-led SAFER initiative and technical package (WHO, 2019). The Global alcohol action plan 2022–2030 (WHO, 2024a) provides a detailed description of proposed actions and measures for implementation by different stakeholders in order to reduce alcohol-related harm worldwide and specifies the global targets and indicators for monitoring progress with its implementation. The above policy frameworks underline the important role of treatment services in reducing the health and social harms due to psychoactive substance use. The key components of treatment responses to substance use disorders are described in Chapter 3 of this report.

1.3 The impact of alcohol, tobacco and psychoactive drug use on the health of the world's population is unacceptably high by any metric, and for the working age population it exceeds the impact of any other risk factor

The use of tobacco results in over 8 million deaths every year, including 1.3 million deaths among people who do not use tobacco (GBD 2019 Risk Factors Collaborators, 2020; WHO, 2023b). As presented in Chapter 2 of this report, 2.6 million deaths were attributable to alcohol use in 2019, and these deaths are distributed across several major health conditions, including noncommunicable and mental health conditions, injuries and infectious diseases (see section 2.2 of this report). According to the latest WHO estimates, psychoactive drug use resulted in almost 0.6 million deaths in 2019 with infectious diseases (viral hepatitis, HIV), drug use disorders (including drug overdose), road traffic injuries and suicides as the causes of these deaths (Figure 1.3).

Figure 1.3 **Deaths attributable to drug use, by causes, all ages, all sexes, 2019**

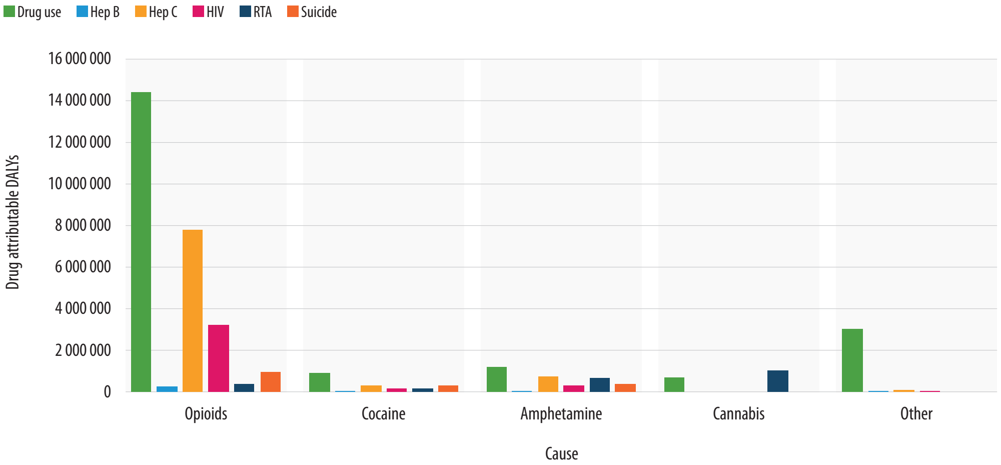


Psychoactive substance use makes a significant contribution to poor health globally, not only because of premature mortality but also because of poor health due to disabilities. As presented in Chapter 2 of this report, alcohol consumption resulted in an estimated 115.9 million disability-adjusted life years (DALYs) lost in 2019, representing 4.6% of all DALYs lost globally.

According to the latest WHO estimates, psychoactive drug use resulted in an estimated 36.7 million DALYs in 2019, largely due to overdose deaths and viral hepatitis, and mainly among persons who use opioids (Figure 1.4).

The analysis of the impact of different risk factors on global health undertaken in the framework of the Global Burden of Disease (GBD) study of 2019 indicate that tobacco, alcohol and psychoactive drug use are among the leading risk factors for health. Their combined impact on the disease burden exceeds the impact of any other risk factor for the world population aged 10–74 years. The impact of alcohol and drug use has significantly increased in 2019 in comparison with 1990, with alcohol use positioned as the top risk factor for people of 25–49 years of age (GBD 2019 Risk Factors Collaborators, 2020).

Figure 1.4 Drug-attributable DALYs (absolute numbers), by drugs and causes, all ages, all sexes, 2019



The situation is particularly challenging in low- and middle-income countries where the resources available for the development or implementation of existing national policy frameworks may not be sufficient. At the same time, despite the commitments made at all levels, the international efforts, development aid and financial investments aimed at preventing and reducing harm related to substance use are still not commensurate with the impact of psychoactive substance use on global health and well-being.

1.4 There is a complex relationship between substance use, alcohol- and drug-related harms and socioeconomic status, and people with lower socioeconomic status are disproportionally affected by harms due to substance use

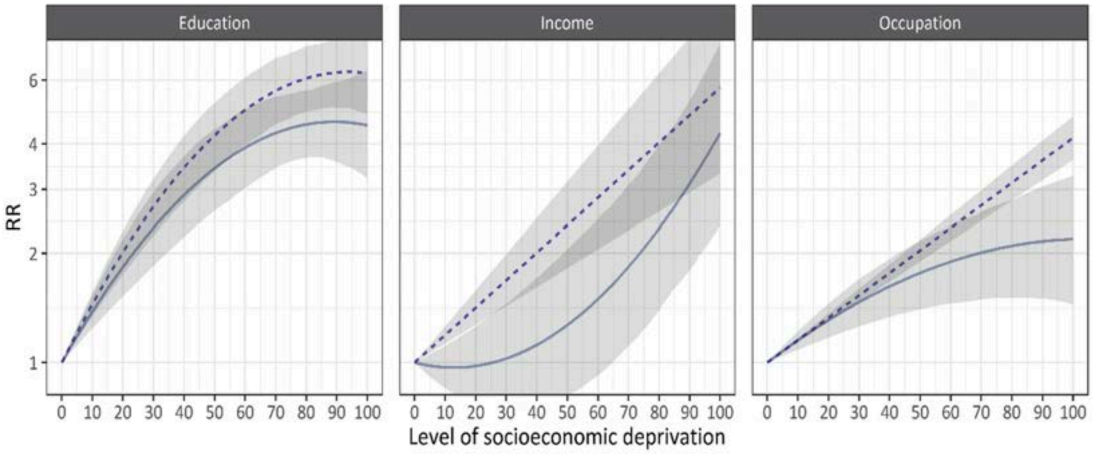
Prevalence rates of alcohol and drug use are consistently higher in higher-income countries. It is also common for patterns of substance use to vary greatly across different segments of the population, and for these differentiations to vary between different societies – and often between cultural and socioeconomic groups within a given society.

Although the harms due to substance use on an individual level depend to a large extent on levels and patterns of substance use and severity of substance use disorders, health outcomes in people using alcohol or psychoactive drugs can be influenced significantly by socioeconomic status, and greater societal influence can mitigate the negative health and social consequences of substance use. For instance, harms for a given level and pattern of drinking have been shown to be higher for poor drinkers and their families than for richer people in any given society (Schmidt & Room, 2012; WHO, 2018).

Inequitable access to health care for people living with substance use disorders may contribute to poor health outcomes, including among people with low socioeconomic status who may receive a lower quality of care or cannot access the treatment and care that is provided on the basis of out-of-pocket payments. Negative attitudes of health-care practitioners to people with substance use disorders or who are using drugs may lead to substandard treatment and care and the overuse of coercive or paternalistic approaches (Livingston, 2020).

Results of a systematic review on the relation of the alcohol-attributed mortality rate with socioeconomic status, based on 25 studies, indicate that for both men and women, alcohol-attributable mortality is associated with "socioeconomic deprivation" measured across three domains: income, occupational status and educational level (Figure 1.5).

Figure 1.5 Relative risk (RR) of mortality from an alcohol-attributable cause of death by three indicators of socioeconomic status and sex



— Women (uninterrupted line); - - - - Men (interrupted line)

The level of socioeconomic deprivation indicates the percentile in the cumulative distribution of socioeconomic status. 0 = lowest level of socioeconomic deprivation and 100 = highest level of socioeconomic deprivation. Gray-shaded areas show 95% uncertainty bands.

Source: Probst et al., 2021.

Low socioeconomic status is also associated with adverse health outcomes among people who use psychoactive drugs. A systematic review of the relationship between opioid overdose and "socioeconomic marginalization" (SEM) indicates a higher rate of opioid overdose in people who use drugs with higher SEM levels (van Draanen et al., 2020). A study of "social determinants of drug-related mortality" in Finland found that such deaths were more common among the socially disadvantaged, such as those who had lower education or were unemployed (Rönka et al., 2017). Similar results were received in the study of overdose deaths due to use of opioids and cocaine in Luxembourg where the overdose mortality rate among opioid and cocaine users with lowest socioeconomic profiles was 9.88 times higher than among their peers from the highest socioeconomic groups (Origer et al., 2015). Moreover, there is evidence that the poor and vulnerable are more likely to be arrested and prosecuted for selling or possessing illicit drugs, with arrest rates often being especially high for black and indigenous young persons (Friedman et al., 2016; Owusu-Benpah & Luscombe, 2021).

Addressing substance use and substance use disorders through effective public health policies and interventions is an important component of societal responses to reducing inequalities in modern societies.

1.5 Substance use has a significant impact on mental health, and substance use disorders often co-occur with mental health conditions and worsen their health outcomes, including all-cause premature mortality as well as mortality due to suicides

SDG health target 3.4 aims, inter alia, to promote mental health and well-being. The suicide mortality rate is included as an indicator for that health target.

Psychoactive substance use has direct relevance to a person's mental health and well-being. Substance use can result in acute substance intoxication of different severity that is manifested by time-limited impairment of different mental health functions, including hallucinations, anxiety or euphoria (Table 1.3). Some of the anticipated effects of acute intoxication are among the main drivers of people's substance use, despite the awareness of associated risks to health and well-being. Yet some of these effects are similar, though of a short duration, to manifestations of serious mental health disorders. Substance use is also the necessary and sufficient cause for the development of substance use disorders and related health conditions, such as substance dependence, withdrawal states or substance-induced delirium.

Epidemiological research has demonstrated high rates of mental health conditions among people with substance use disorders (Hunt et al., 2020; Plana-Ripoll O et al., 2020). Associations between substance use and mental health are considered as bidirectional – i.e. the presence of some mental disorders increase the risk of substance use, and the presence of substance use disorders increases the risk of development of some mental health conditions (Volkow & Blanco, 2022). Research indicates that psychiatric comorbidity is prevalent among people with substance use disorders, with affective disorders being the most prevalent. Dual-diagnosis clients tend to have a more severe course of illness, more severe health and social consequences, more difficulties and complications in treatment, and worse treatment outcomes than clients with a single disorder (Volkov et al., 2020). There is evidence of a significant impact of coexisting substance use disorders on the mortality rates and life years lost among people living with common mental health conditions such as mood disorders, schizophrenia and personality disorders (Plana-Ripolli et al., 2020). Tobacco smoking and nicotine dependence is associated with the lower life expectancy of people living with major mental health conditions (Dregan et al., 2020; Le Cook et al., 2014).

A description of mental and behavioural disorders due to the use of alcohol is provided in Chapter 2 of this report. The use of toxic psychoactive substances such as alcohol, some synthetic psychoactive drugs and volatile inhalants may result in significant cognitive impairment, including substance-induced amnestic disorder and substance-induced dementia (WHO, 2004; 2018). Prenatal exposure to some psychoactive substances may result in neonatal withdrawal states (Hudak et al., 2012) and long-term neurodevelopmental disorders such as fetal alcohol spectrum disorders (FASD) (Popova et al., 2023).

Cannabis intoxication is associated with multiple manifestations of temporary impairment of mental health functions (Table 1.3). Weekly cannabis use is associated with a 35% increase in risk of developing a psychotic disorder in comparison with non-users, and such risk is even higher (RR=1.76) for individuals using cannabis daily (Robinson et al., 2023). Use of higher potency cannabis relative to lower potency cannabis is associated with an increased risk of psychosis and cannabis use disorder (Petrilli et al., 2022).

Table 1.3 Common mental health features of acute substance intoxication (for selected classes of substances)

Substances	Common mental health features of substance intoxication
Alcohol	Impaired attention, inappropriate or aggressive behaviour, lability of mood and emotions, impaired judgement, poor coordination, unsteady gait, slurred speech. At more severe levels of intoxication, stupor or coma may occur.
Cannabis or synthetic cannabinoids	Euphoria, impaired attention, impaired judgement, perceptual alterations (such as the sensation of floating, altered perception of time, illusions), changes in sociability, increased appetite, anxiety, intensification of ordinary experiences, impaired short-term memory, sluggishness. Synthetic cannabinoid intoxication may cause delirium or acute psychosis.
Opioids	Somnolence, stupor, mood changes (e.g. euphoria followed by apathy and dysphoria), psychomotor retardation, impaired judgement, respiratory depression, slurred speech, impairment of memory and attention. In severe intoxication, coma may ensue.
Cocaine	Inappropriate euphoria, anxiety, anger, impaired attention, hypervigilance, psychomotor agitation, paranoid ideation (sometimes of delusional intensity), auditory hallucinations, confusion, changes in sociability.
Amphetamine-type stimulants	Anxiety, anger, impaired attention, hypervigilance, psychomotor agitation, paranoid ideation (possibly of delusional intensity), transient auditory hallucinations, transient confusion, changes in sociability.
Hallucinogens	Hallucinations, illusions, perceptual changes such as depersonalization, derealization, synesthesias (blending of senses, such as a visual stimulus evoking a smell), anxiety, depressed or dysphoric mood, ideas of reference, paranoid ideation, impaired judgement, palpitations, sweating, blurred vision, tremors, lack of coordination.
MDMA or related drugs, including MDA	Increased or inappropriate sexual interest and activity, anxiety, restlessness, agitation.
Dissociative drugs including Ketamine and PCP	Aggression, impulsiveness, unpredictable behaviour, anxiety, psychomotor agitation, impaired judgement, numbness or diminished responsiveness to pain, slurred speech, dystonia.

The association of substance use with suicidal behaviour is complex, but there is sufficient evidence of increased risk of suicides in the presence of substance use disorders (Rizk et al., 2021; Darvishi et al., 2015; Boden & Fergusson, 2011). There is an emerging evidence of the possibility of a linear association of alcohol use (not necessarily alcohol use disorders) with suicide-related outcomes (Ledden et al., 2022; Akechi et al., 2018). As presented in Chapter 2 of this report, the alcohol-attributable fraction for self-harm was estimated to be as high as 18%. While the relationship between alcohol use and depression is not as yet deemed causal, there is growing evidence, especially in light of the recent global pandemic, of the effect of alcohol on depression and anxiety (Shield et al., 2021; Rehm et al. 2017).

Opioid use and opioid use disorders are associated with increased risk of suicides, and the reported risk levels are similarly as high as those of alcohol use disorders. For people with opioid use disorders the lifetime suicide attempt rates are estimated to be as high as 17–48% (Rizk et al., 2021), and suicidal intentions and behaviours may play a role in opioid overdose deaths (Oquendo & Volkow, 2018).

1.6 Substance use has a significant impact on the development and outcomes of a number of major noncommunicable diseases, and the global impact of psychoactive drugs and substance use disorders on noncommunicable diseases has to be further explored and documented

The harmful use of alcohol is one of the key risk factors for major noncommunicable diseases (NCDs) and is considered as an important target in NCD prevention and control strategies and interventions (WHO, 2013). A detailed description of the role of alcohol use in the disease burden due to major noncommunicable diseases is presented in Chapter 2 of this report.

The impact of nicotine-containing tobacco products on the health of populations is well established and documented (GBD 2019 Risk Factors Collaborators, 2020; WHO, 2023b), and tobacco cessation is considered as one of the main strategies in reducing tobacco use and its negative health consequences (WHO, 2023b).

However, the role of psychoactive drugs in the development of major NCDs and their outcomes is less known, and the most recent estimates of drug-attributable disease burden do not include the estimates of NCD-related deaths or DALYs attributable to psychoactive drug use.

The use of stimulants such as cocaine, amphetamines and synthetic cathinones is associated with well-documented acute cardiovascular risks with the known pathophysiological mechanisms and can result in potentially fatal acute cardiovascular conditions such as myocardial infarction, strokes or arrythmias, as well as long-term cardiovascular consequences such as cardiomyopathy and ventricular disfunction (Akasaki & Ohishi, 2020). The impact of cocaine use on the risk of coronary artery disease is still to be established in view of the inconsistent results of available studies and methodological challenges (Kim & Park, 2019).

Whereas the role of alcohol consumption as a risk factor for cancers of several locations is well established (IARC, 2010; WHO, 2018) and increasingly known, the established (IARC, 2021) carcinogenicity of opium consumption (but not the pure alkaloids that can be extracted from opium, such as morphine and codeine) for larynx, lung and urinary bladder cancers is less widely known. Results of a more recent systematic review and meta-analysis (Bidary et al., 2021) highlight a substantial increase for opium consumers compared to non-consumers in risks for larynx (OR = 9.58, 95% CI = 6.31–14.53)], respiratory [OR = 9.02, 95% CI = (6.27–12.96)], head and neck [OR = 8.03, 95%CI = (4.03–16.00)] and colon [OR=5.58, 95%CI = (3.14–9.92)] cancers.

The pooled mortality relative risk estimates for different health conditions in people using stimulants and opioids are presented in Table 1.4. The estimates are based on the latest systematic reviews and meta-analyses (Peacock et al., 2021; Larney et al., 2020; Stockings et al., 2019).

Table 1.4 Pooled mortality relative risk estimates among people using cocaine, opioids and amphetamines

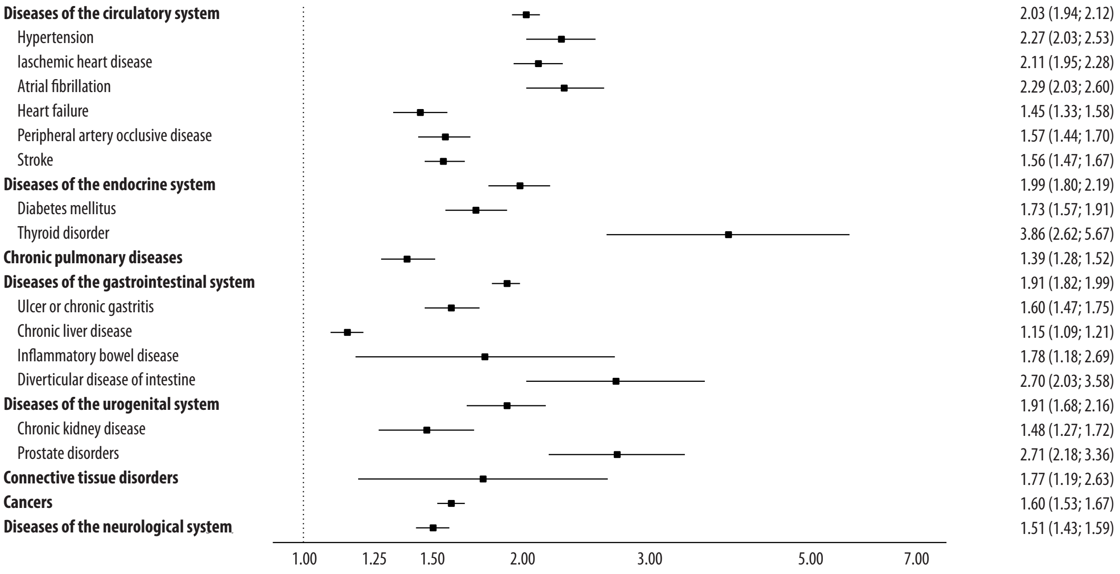
	Pooled mortality relative risk (95%CI)		
Condition	Cocaine	Opioids	Amphetamines
All-cause mortality	5.41 (3.65-8.01)	10.61 (8.07, 13.94)	7.25 (5.68–9.25)
Accidental injury	6.13 (4.02, 9.34)	7.35 (4.69, 11.51)	5.19 (2.91–9.24)
Suicide	6.32 (2.79, 14.34)	9.01 (6.28, 12.92)	13.39 (6.03–29.73)
Cerebrovascular disease	1.85 (0.39, 8.825)	4.92 (3.49, 6.94)	5.16 (3.76–7.07)
Homicide/violence	9.80 (3.52, 27.25)	10.95 (7.28, 16.48)	12.09 (7.95–18.38)
AIDS-related	13.54 (3.78–48.56)	16.04 (5.40, 47.59)	28.42 (17.50–47.56)
Cancer	1.49 (0.70–3.18)	2.77 (1.88, 4.09)	2.20 (1.35–3.59)
Liver-related	3.39 (0.50–23.02)	8.98 (6.10, 13.21)	4.84 (0.92–25.47)

Sources: Stockings et al., 2019; Larney et al., 2020; Peacock et al., 2021.

With estimated 22 million people using cocaine in 2021, 36 million people using amphetamines and around 5 million opium users worldwide, the relationship between drug use and non-communicable diseases is of direct relevance to global health (UNODC, 2023).

There is emerging evidence that presence of substance use disorders may have a significant impact on health outcomes of non-communicable and mental health conditions. The register-based nation-wide studies in Czechia demonstrated higher mortality for wide range of common physical health

Figure 1.6 Adjusted hazard ratios (aHR) of all-cause mortality following the onset of physical health conditions in people with substance use disorders compared with matched counterparts without substance use disorders



Source: Formánek et al., 2022.

conditions and reduced life expectancy when they occur in people with pre-existing substance use disorders (Formánek et al., 2022) (Figure 1.6). The shorter life expectancy associated with comorbid substance use disorders and general medical health conditions was also demonstrated in register- and population-based study in Denmark (Momen et al., 2022).

1.7 Injecting drug use continues to be an important driver of epidemics of HIV and viral hepatitis in some populations, and substance use and substance use disorders are associated with an increased risk of acquiring infections and with negative effects on treatment outcomes

SDG health target 3.3 calls for ending the epidemics of AIDS, tuberculosis and other communicable diseases, including viral hepatitis. A recent systematic review produced an estimate that 14.8 million people aged 15–64 years inject drugs, and that 15.2% of them are living with HIV, 38.8% have current hepatitis C (HCV) infection and 31.7% have had a recent skin or soft tissue infection (Degenhardt et al., 2023). Injecting drug users are nearly three times more likely to acquire HIV than non-injecting drug users without significant differences in risks depending on the drugs injected (Tavitian-Exley et al., 2015). Figure 1.7 demonstrates the significant role of viral hepatitis and HIV in drug-attributable disease burden consistently over time.

The harmful use of alcohol has a negative effect on HIV infection by increasing risk of HIV transmission through risky sexual behaviour, affecting alcohol-drug interactions and/or reduction in treatment adherence and by compromising immune responses (WHO, 2018). Compromised immune responses and impaired adherence to treatment regimens are among the factors of a documented three-fold increase in the risk of tuberculosis associated with alcohol use disorders (Imtiaz et al., 2017).

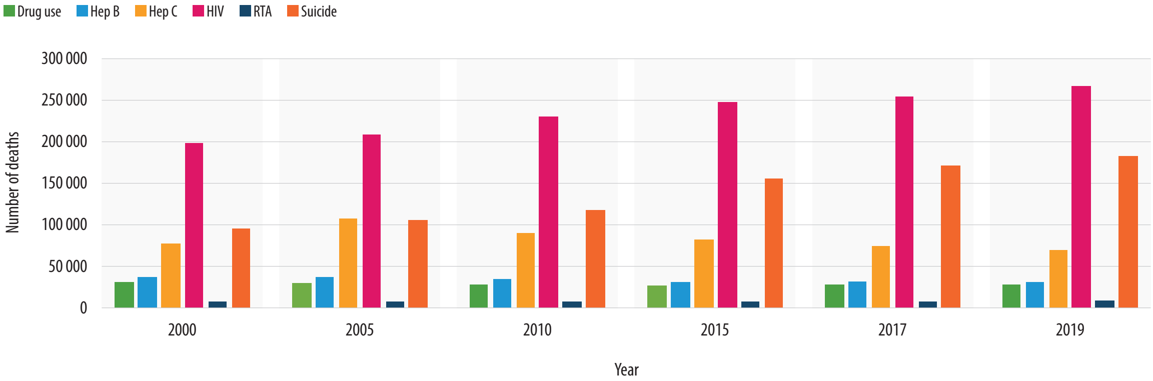
It has been shown that people with alcohol use disorders have a higher prevalence of viral hepatitis C compared with the general population (Singal & Anand, 2007; Cortes et al., 2017) and alcohol consumption and alcohol use disorders were major contributors to poor treatment outcomes in hepatitis B and C (Xu et al., 2021). The prevalence of alcohol use disorders among people with decompensated cirrhosis varied from 28% to 50% in Australia, Canada and Scotland (Alavi et al., 2018).

Global estimates of the contribution of infectious diseases to the alcohol-attributable disease burden are presented in Chapter 2.

Multiple infections occurring alongside other medical and psychiatric comorbidities can be made worse by the low rates of health-care access and utilization, resulting in missed opportunities for early diagnosis and treatment (Kolla et al., 2020).

The attainment of SDG health target 3.3 requires effective prevention, treatment and harm-reduction strategies and interventions that address substance use and substance use disorders.

Figure 1.7 Deaths (absolute numbers) attributable to drug use, by causes, all drugs, all ages, all sexes 2000–2019



1.8 Substance use and substance use disorders are major contributors to various types of injuries, including traffic- and violence-related injuries. Reducing the number of global deaths due to injuries requires implementation of effective strategies and interventions to prevent injuries associated with alcohol and drug use

Attainment of SDG heath target 3.6 requires the number of global deaths and injuries from road traffic accidents to be halved. The role of alcohol consumption in traffic crashes and casualties is well established, with risk curves that increase geometrically with blood-alcohol level, beginning at a low level (Taylor et al., 2010). The global estimates of alcohol-attributable injuries are presented in Chapter 2 of this report.

There is mixed evidence on the impact of cannabis on driving, with some studies showing the presence of cannabis to be associated with a higher risk of potentially unsafe driving actions (even when controlling for covariates) and others showing no effect (for reviews, see Macdonald et al., 2003; Kelly et al., 2004). However, the evidence of a relationship between cannabis intoxication and the risk of traffic accidents is becoming stronger, and the dose-dependent impairments in psychomotor skills – such as those involved in driving – are well documented (Robbe, 1998; Moskowitz, 1985). A meta-analysis of cannabis crash studies found a statistically significant increased risk (OR of 2.1) of fatal crashes in drivers under the influence of cannabis (Asbridge et al., 2012). WHO's global estimates of drug-attributable deaths for 2019 include cannabis-attributable deaths due to road traffic accidents (Table 1.5). The combination of cannabis and alcohol consumption further increases the risk only from the alcohol (Chihuri et al., 2017; Fares et al., 2022).

Effects of other drugs, and combinations of drugs, on driving safety have not been so well studied, although elevated risks for the use of benzodiazepines, cocaine and amphetamines resemble those for alcohol, and risk is also increased for combinations of other drugs with alcohol (Kelly et al., 2004; Movig et al., 2004; Babor et al., 2018a; Marillier & Verstraete, 2019; Cameron-Burr et al., 2021).

A proportion of deaths due to road traffic injuries, when driving under the influence of alcohol and/or drugs and leading to injuries of other people, are examples of "harms to others" from substance use. These harms highlight the impact of substance use on families, communities and societies beyond the health and well-being of the persons using psychoactive substances.

Alcohol and drug use are important contributors to road traffic accidents and associated deaths and disabilities, and effective strategies and interventions should be implemented to prevent injuries associated with psychoactive substance use.

Table 1.5 Global deaths attributable to drug use, 2019

Drug type	Drug use disorders	HIV	HBV	HCV	RTA	Suicide	Total deaths
Opioid	123 848	60 679	7 287	233 941	5 351	17 383	448 489
Cocaine	7 420	2 589	258	8 789	2 285	4 741	26 082
Amphetamine	4 454	5 427	666	21 345	9 214	5 555	46 661
Cannabis	–	–	–	–	14 206	–	14 206
Other	46 035	346	56	1 637	–	–	48 074
All drugs	**181 758**	**69 040**	**8 267**	**265 711**	**31 056**	**27 679**	**583 511**

1.9 Commercial determinants of substance use have to be addressed as a part of comprehensive policy responses to reduce the negative impact of psychoactive substance use on health and development in populations

The commercial determinants of health are defined as the private sector activities that affect people's health – directly or indirectly, positively or negatively – and that have an impact on a wide range of risk factors through the known drivers and channels of influence and impact (Kickbush et al., 2016) (Figure 1.8). Commercial determinants arise in the context of the provision of goods or services for payment and include commercial activities as well as the environment in which commerce takes place (WHO, 2023d).

There is a long history of distribution and sale of psychoactive substances, and strong commercial interests are involved in production, distribution and marketing of nicotine-containing tobacco products, alcoholic beverages or pharmaceutical preparations with psychoactive and dependence-producing properties. Governments and global intergovernmental agencies are faced with conflicting interests in setting policies on the availability and marketing of psychoactive substances (Mäkelä & Viikari, 1977; Room & Jernigan, 2000). There are many instances historically of governments doing little to impede the economic gain, at least in the shorter run, from encouraging or at least permitting as much production, sale and use of a substance as possible. Historically, such periods of ready free-market availability and promotion of psychoactive substances have usually been succeeded by moves, whether "from above" or "from below", to place limits on the market, and sometimes indeed to abolish it.

The Framework Convention on Tobacco Control and drug control conventions includes regulations on production, distribution and marketing of tobacco products, narcotic drugs and psychotropic substances. Alcoholic beverages are not regulated by legally binding frameworks at the international level, although most countries have national alcohol control regulations and some of them are supported by legislative regulatory measures (see Chapter 2 of this report).

Private entities and enterprises play a significant role in shaping the availability, affordability and attractiveness of psychoactive substances which are legal to produce and distribute – and these same private entities and enterprises have an increasing role in public health policy regulation and outcomes (WHO, 2023d).

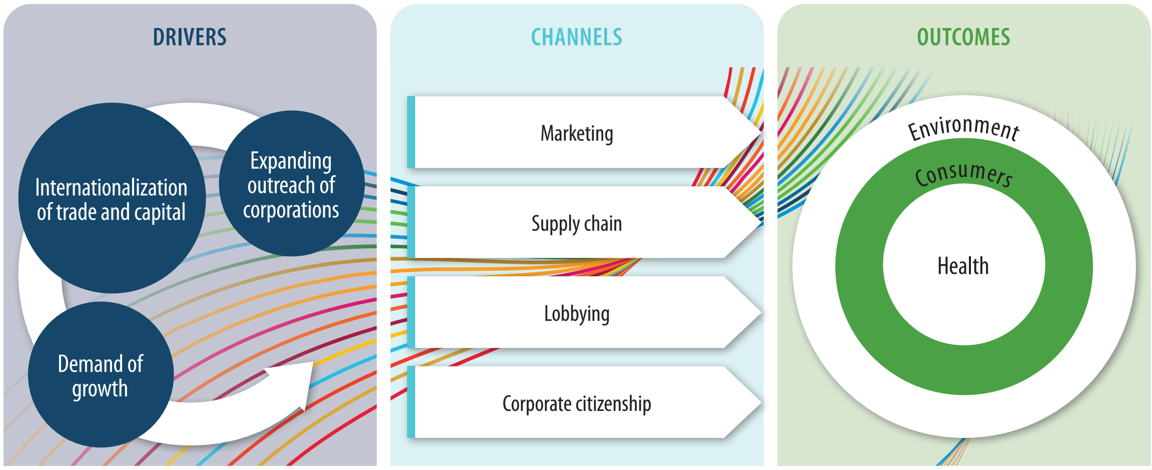
The role of commercial determinants in alcohol use and related harm, as well as in policy development and implementation, is well documented (Babor et al., 2010; Babor et al., 2018). The exposure of children and adolescents to appealing marketing and advertisements for alcoholic beverages is of particular concern (WHO, 2013), including when this involves cross-border alcohol marketing, advertising and promotion (WHO, 2022a).

Commercial determinants played an important role in developing effective pharmacological treatment for pain management with opioid medicines and their different formulations as well as for the treatment of opioid use disorders (Toce et al., 2018). However, commercial interests have also been important drivers of the unfolding unprecedented crisis with opioid overdose deaths in several countries (Koehl et al., 2019), reflecting an imbalance between commercial interests, health benefits and significant public health risks (National Academies of Sciences, Engineering, and Medicine, 2017).

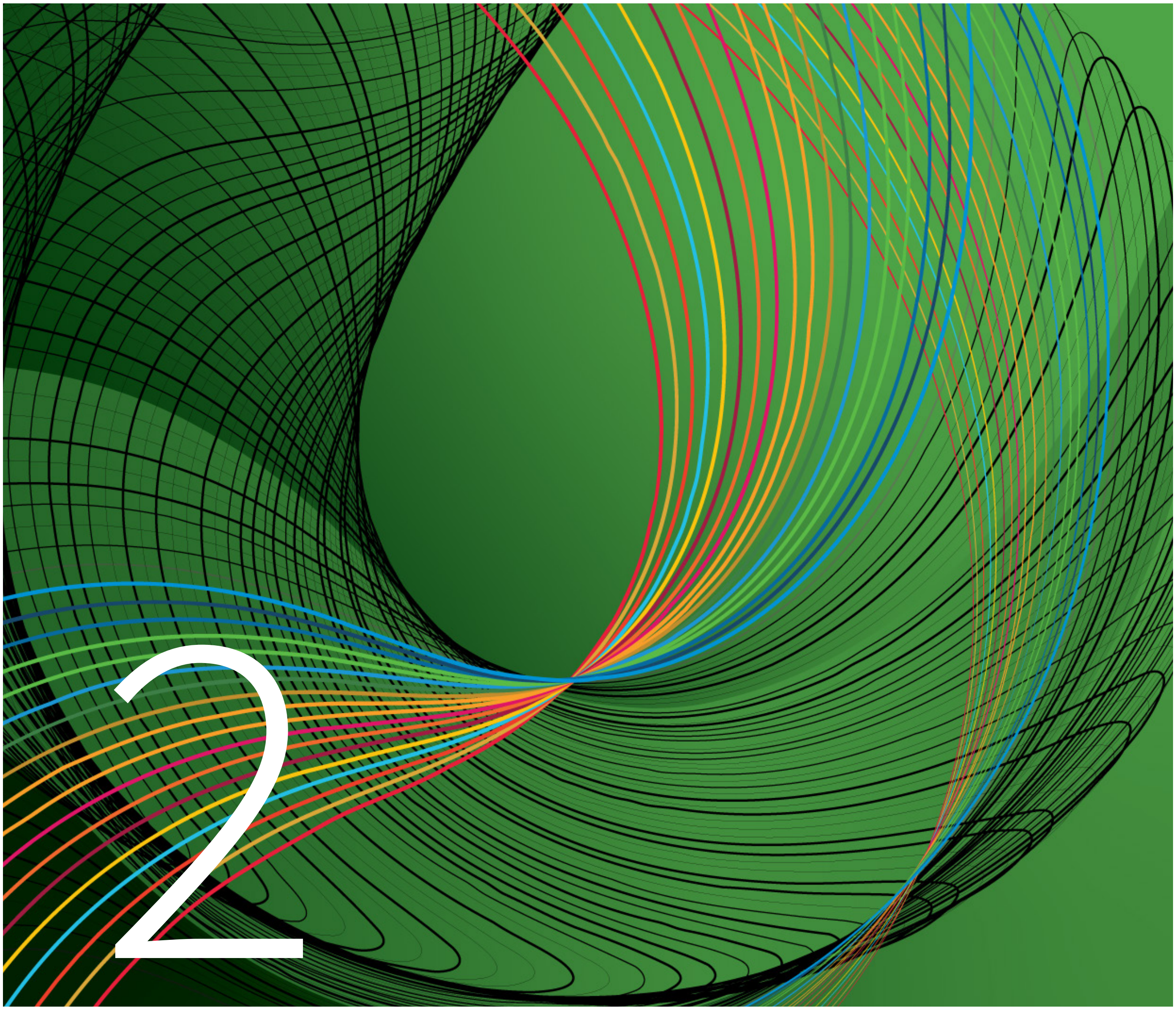
In recent years an increasing number of jurisdictions have legalized cannabis use for medical and, in several countries, for nonmedical use (Hall et al., 2019). The commercial entities involved in the production and distribution of cannabis and cannabis-based products have expanded all over the world in terms of their numbers as well as their wealth and potential to influence public health policies. There were legitimate concerns that the “marijuana industry’s trajectory could therefore repeat tobacco’s” (Richter & Levy, 2014), and recent developments support predictions made at the early stages of expansion of the marijuana industry (Shover & Humphreys, 2019).

Effective public health actions aimed at reducing the harms due to psychoactive substance use should include effective measures to: 1) confront the activities of commercial entities that have a potential to have a negative impact on public health (Kickbush et al., 2016); and 2) protect public health policy development and implementation from the undue influence of commercial interests (WHO, 2010a, 2013, 2022, 2023a).

Figure 1.8 Dynamics that constitute the commercial determinants of health



Source: Adapted from Ilona Kickbusch, Luke Allen, Christian Franz. The commercial determinants of health. The Lancet Global Health. December 2016; https://doi.org/10.1016/S2214-109X(16)30217-0. Licensed under the CC-BY-NC-ND licence.



2

Alcohol consumption, alcohol-related harm and policy responses

CHAPTER 2

Alcohol consumption, alcohol-related harm and policy responses

The harmful use of alcohol poses a significant barrier to achievement of the Sustainable Development Goals (SDGs) through its impact on so many aspects of life in many countries. Alcohol continues to be the most commonly used psychoactive substance of significant public health importance. With widespread acceptance of alcohol use and social norms that support drinking behaviour, the detrimental effects of alcohol consumption on the health of populations are often downplayed or overwhelmed by claims of the positive impacts on well-being and economic development. Mixed messages about the harms and benefits of alcohol production and consumption may delay appropriate health-seeking behaviour and weaken actions aimed at reducing the health and social burden attributable to alcohol consumption (Box 2.1). As highlighted in Chapter 1, alcohol is the only psychoactive substance that exerts a significant impact on global population health, but is not regulated at the international level by legally-binding regulatory instruments. The inclusion of the harmful use of alcohol in health target 3.5 and alcohol-focused indicator (3.5.2) in the 2030 Agenda for Sustainable Development indicates increasing awareness of the impact of the harmful use of alcohol on health and development in populations.

Box 2.1 "Harmful use of alcohol" and "alcohol consumption" in the alcohol policy discourse

Ongoing debates about priority targets for actions to reduce alcohol-related harm often focus on the concepts of "harmful use of alcohol" and "alcohol consumption". One issue in the debates relates to the question as to whether any alcohol consumption should be considered as harmful to health and should be targeted by strategies and interventions, or whether the focus should be on the levels and patterns of alcohol consumption which are associated with harms, or with appreciably increased risks of producing harms to health and well-being while supporting people in their non-drinking behaviour and protecting them from pressures to drink.

The Global strategy to reduce the harmful use of alcohol, endorsed by WHO Member States at the Sixty-third World Health Assembly, defines the "harmful use of alcohol" as "drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as the patterns of drinking that are associated with increased risk of adverse health outcomes" (WHO, 2010a). This definition is much broader than the diagnostic category of "harmful use" included in the 10th revision of the International Classification of Diseases (ICD) (WHO, 1992). The confusion in debates about the terms is often driven by false identification of the policy term "harmful use of alcohol" with the clinical diagnostic term of "harmful use". The 11th revision of ICD substituted the term "harmful use" with "harmful pattern of use" (WHO, 2024a) with with a brief description provided in Chapter 1. This chapter of the report illustrates the appropriateness of use of all the above-mentioned terms in different contexts.

This chapter of the report presents WHO's latest global data on alcohol consumption, alcohol-related harm and policy responses with the objective of assessing the progress achieved with reduction of alcohol consumption, alcohol-attributable disease burden and policy responses since the year (2010) of adoption of the Global strategy to reduce the harmful use of alcohol. The chapter also provides data on health conditions which are entirely attributable to alcohol consumption (i.e. when alcohol use serves as the necessary and sufficient causal factor for their development, and the sole or main cause of their development), as well as health conditions which are partially attributable to alcohol consumption (i.e. when alcohol use serves as an important and preventable risk factor which increases the probability of development of such conditions or associated mortality and disability, although these health conditions may also occur or develop without any exposure to alcohol).

The data provided in this chapter refer to different time periods depending on the context and availability of data. The COVID-19 pandemic had profound impacts on mortality and morbidity statistics in WHO Member States, as well as on alcohol consumption, which still need to be refined. That is why all the estimates of alcohol-attributable disease burden in section 2.2 of this report are provided only for 2019 with 3-year average estimates for alcohol consumption (2017–2018–2019 in view of the impact of COVID-19 on alcohol consumption in 2020). At the same time, the estimates on alcohol consumption for 2020 are available as one-year estimates, and are included in the report. Interpretation of 2020 data should take into consideration the context of the COVID-19 pandemic that had a significant impact on alcohol consumption. When trends in alcohol consumption and related harm are presented, the focus is on the changes since 2010 as the baseline for the NCD global monitoring framework and the year of endorsement of the Global strategy to reduce the harmful use of alcohol. Longer time periods (since 2000) are used for illustrating longer-term trends when data are available.

Additional information is provided in the statistical annexes of the report and in WHO's Global Information System on Alcohol and Health.

2.1 Global status and trends in alcohol consumption (SDG 3.5.2 indicator)

Alcohol use is a major risk factor for poor health and is responsible for a significant part of the overall burden of disease and mortality, as well as social harm, as demonstrated in section 2.2 of this chapter. The harmful use of alcohol impedes progress towards multiple SDGs, including the goals of reducing deaths and injuries from road traffic accidents (SDG 3.6), reducing or eliminating all forms of violence and related deaths (SDG 16.1), also against women and girls (SDG 5.2) and children (SDG 16.2) (WHO Regional Office for Europe, 2020; Room, Cook & Laslett, 2022).

At individual level any alcohol consumption is associated with short-term or long-term risks to health and well-being, but these risks differ in terms of their magnitude and are not always realized during the lifespan as the actual harms to an individual's health and well-being. In populations, however, any level of alcohol consumption is usually associated with a detrimental impact on population health, largely due to hazardous and harmful levels and patterns of alcohol consumption in a population, including persons with alcohol use disorders. Hence, reduction in levels of alcohol consumption at population level, which is best defined as adult (aged 15+ years) total per capita consumption in litres of pure alcohol, is a legitimate and well-justified objective of significant public health importance.

SDG indicator 3.5.2 is defined as alcohol per capita (in persons aged 15 years and older) consumption within a calendar year in litres of pure alcohol. This indicator is also included in the Global Monitoring Framework on NCDs (UN, 2011) (Figure 2.1) and – more recently – on the list of targets and indicators of the Global alcohol action plan 2022–2030 (WHO, 2023) (Figure 2.2). Furthermore, the monitoring of alcohol use and attributable harms is part of national and international surveillance programmes (for WHO surveillance, see: WHO, 2018, 2023; Poznyak et al., 2013).

Figure 2.1 Target and indicators for harmful use of alcohol under the Global Monitoring Framework for NCDs (UN, 2011)

Framework element	Target	Indicator
Behavioural risk factors		
Harmful use of alcohol	By 2025 at least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context	Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context Age-standardized prevalence of heavy episodic drinking among adolescents and adults, as appropriate, within the national context Alcohol-related morbidity and mortality among adolescents and adults, as appropriate, within the national context

Figure 2.2 Global target and indicators for alcohol consumption in the Global alcohol action plan 2022–2030 (WHO, 2024)

Global target	Indicators	Milestones	Comments
1.1. By 2030, at least 20% relative reduction (in comparison with 2010) in the harmful use of alcohol.[a]	1.1.1 Total alcohol per capita consumption defined as the estimated total (recorded plus unrecorded) alcohol per capita (aged 15 years and older) consumption within a calendar year in litres of pure alcohol, adjusted for tourist consumption. 1.1.2. Age-standardized prevalence of heavy episodic drinking. 1.1.3. Age-standardized alcohol-attributable deaths. 1.1.4 Age-standardized alcohol-attributable DALYs.	2019 2022 2025 2027 2029/2030	This target and indicators are fully consistent with SDG and NCD global monitoring frameworks, and data on these indicators have been periodically collected and regularly reported by WHO. WHO estimates for indicator 1.1.1 are produced annually – and for other indicators under this target are produced periodically. WHO estimates for all indicators under this target have been previously reported for 2010, 2012 and 2016.[b]

[a] The target description is identical to the voluntary target agreed for the NCD Global Monitoring Framework. The "at least 20% relative reduction" target is based on the latest available WHO data.

[b] See, respectively: Global status report on alcohol and health (2011). Geneva: World Health Organization; 2011; Global status report on alcohol and health (2014.) Geneva: World Health Organization; 2014; and Global status report on alcohol and health (2018). Geneva: World Health Organization; 2018.

Total alcohol per capita consumption (APC) is calculated as the sum of recorded and estimated unrecorded alcohol consumption within a calendar year in litres of pure alcohol and adjusted for tourist consumption (for details of methodological approaches see Annex 2), divided by the adult population (aged 15 years and above) under consideration. Recorded consumption for almost every country is based on routine statistics such as taxation or production, export and import (see Rehm, Klotsche & Patra, 2007) and, in the overwhelming majority of countries and in all WHO regions, it constitutes the largest portion of APC (see Figure 2.3). Unrecorded consumption includes various subcategories, most importantly home-produced alcohol (which can be legal or illegal), cross-border shopping, other illegally produced alcohol, and smuggled and surrogate alcohol (Rehm et al., 2007). The level of unrecorded consumption is based on survey data such as the WHO STEPS survey (WHO, 2005), derived from expert judgements, or estimated statistically on the basis of available socioeconomic data. Finally, "tourist consumption" is estimated as the net alcohol consumption of inhabitants leaving their home country for a limited amount of time minus the consumption of incoming tourists and business travellers, where for each incoming and outgoing person the average APC of the respective country is taken into account. In WHO key estimates, the APC for any given year is a moving average of three years and, for the year 2019, the years 2017, 2018 and 2019 are averaged (and not 2018, 2019 and 2020 in view of the impact of COVID-19 on alcohol consumption in 2020 that is presented as a one-year estimate).

This section of the report provides an overview of current levels of alcohol consumption, other relevant indicators for alcohol, and the time trends of these indicators since 2000 globally by sex, age, World Bank income groups and WHO regions.

2.1.1 Total alcohol per capita consumption in the world population decreased slightly from 5.7 litres in 2010 to 5.5 litres in 2019 (relative reduction of 4.5%) with the highest levels of per capita consumption in 2019 in the WHO European Region (9.2 litres) and the Region of the Americas (7.5 litres)

As can be seen in Figure 2.3, APC in the world increased from 2010 to 2013, and then slightly declined until 2018, followed by a slight increase in 2019. The overall reduction from 2010 to 2019 was less than 5%.

Despite an overall reduction, some regions and individual countries increased their alcohol consumption between 2010 and 2019. The highest increases were found in the subregions of South-eastern Asia and Southern Europe with increases of 0.5 and 0.4 litres APC, respectively. Decreases were highest in the regions of Eastern Europe and Middle Africa with decreases of 2.2 and 1.2 litres, respectively (see Figure 2.4).

Figure 2.3 Global level of adult alcohol per capita consumption 2010–2019 in litres of pure alcohol

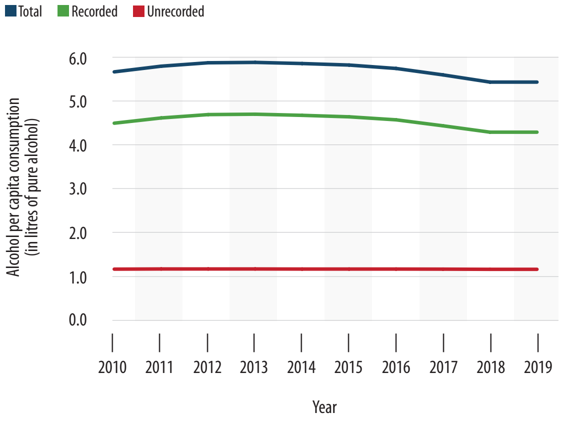
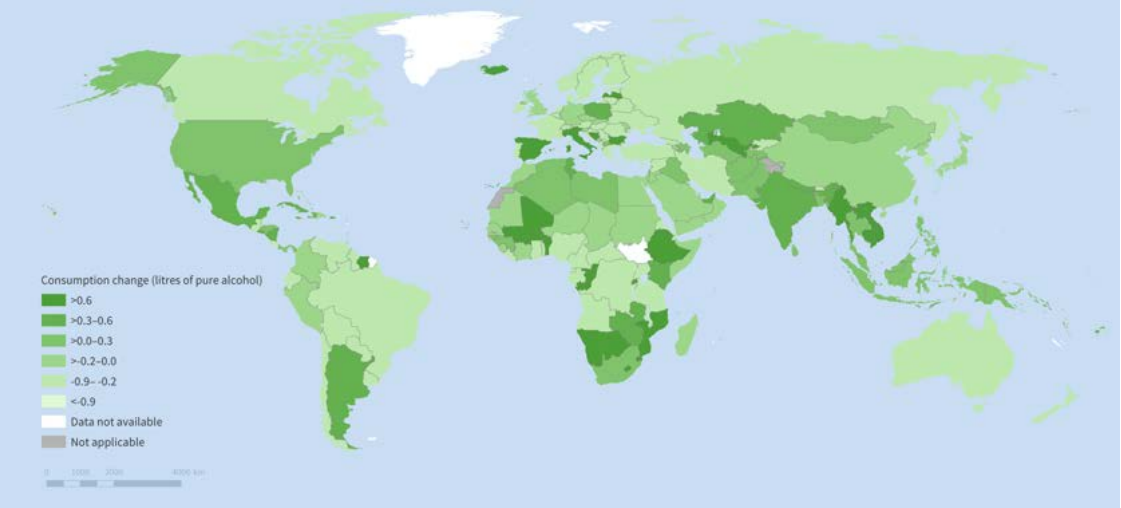


Figure 2.4 Changes in adult per capita consumption 2010–2019



For 2019, Figures 2.5 and 2.6 provide an overview of the level of total, recorded and unrecorded APC globally, by WHO region and World Bank income groups. Different levels of alcohol consumption across WHO Member States in 2019 are presented in Figure 2.7.

Figure 2.5 Total, unrecorded and recorded alcohol per capita consumption (APC) (15+ years) in litres of pure alcohol by WHO region and the world, 2019

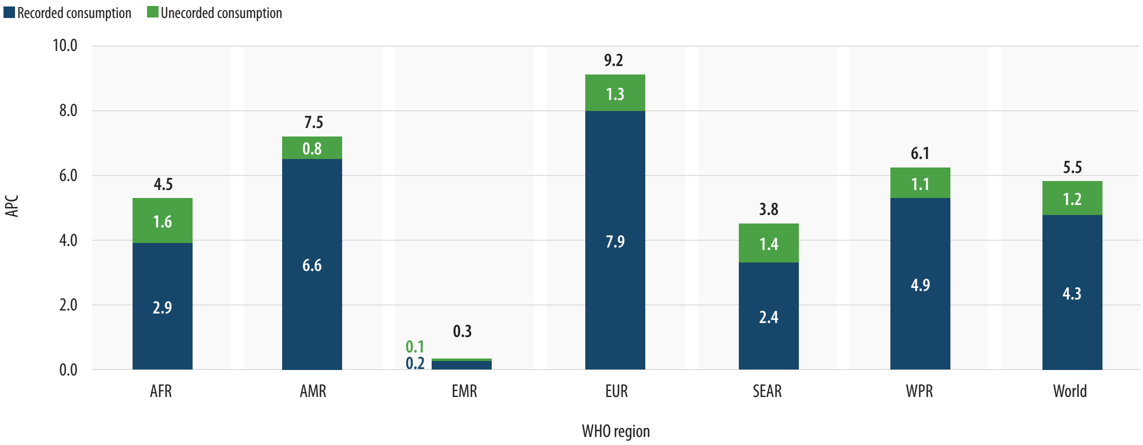


Figure 2.6 Levels of total and unrecorded consumption by World Bank income groups, 2019

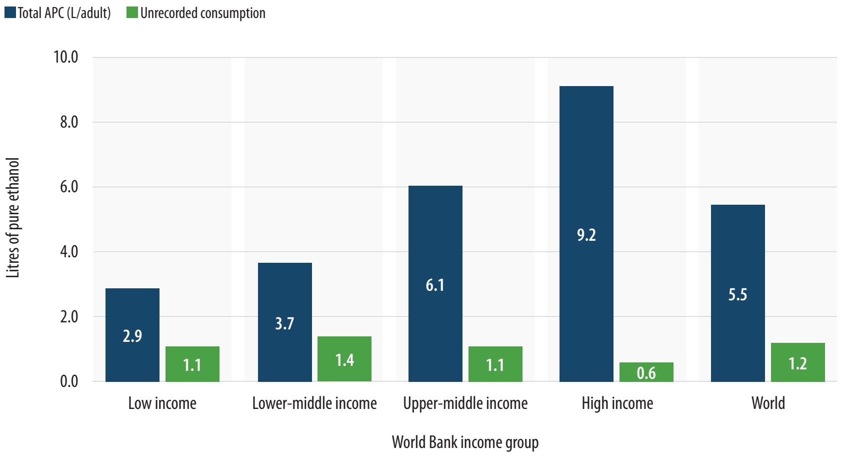
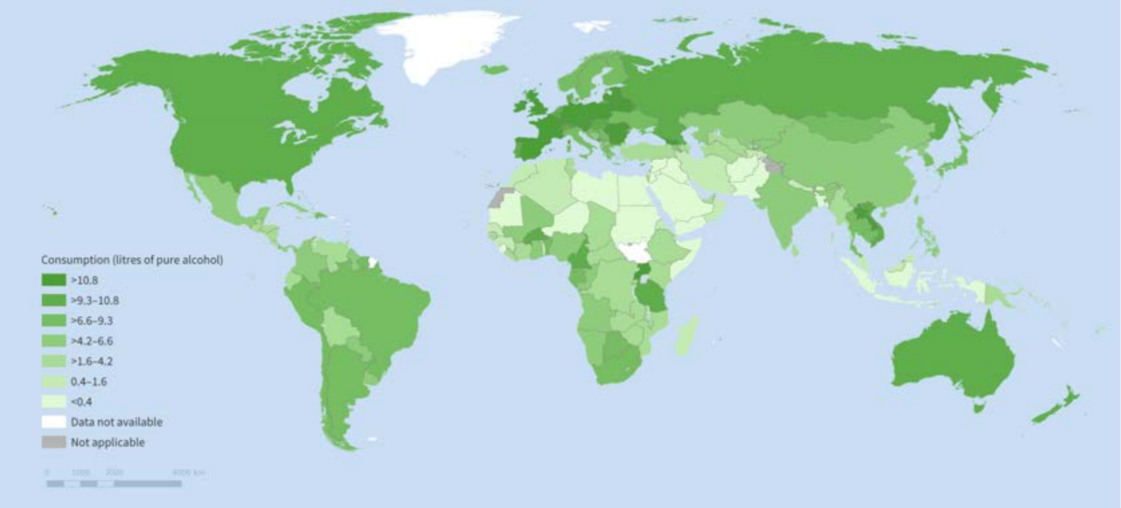


Figure 2.7 Total alcohol per capita consumption (APC) (15+ years; in litres of pure alcohol), 2019



Almost 80% of total alcohol consumed worldwide in 2019 was recorded alcohol (Figure 2.5). Unrecorded consumption thus made up 21% of overall consumption, with tourist consumption being negligible at the global level. There are marked differences between regions, with the WHO European Region showing the highest level of consumption and the WHO Eastern Mediterranean Region showing the lowest level, both influenced largely by cultural and religious factors and norms.

The level and composition of APC are also influenced by wealth. Overall, the wealthier a country or region, the higher the level of consumption and the lower the proportion of unrecorded consumption.

The level of drinking is highest in European countries where the prevalence of drinking is also the highest. Seven of the 10 countries with the highest APC in 2019 globally were members of the European Union which comprises high-income countries in the western part of WHO's European Region. The lowest consumption can be found in a belt of countries with predominantly Muslim populations stretching from Northern Africa and the Middle East to Asian countries (see Figure 2.6).

2.1.2 The COVID-19 pandemic had a significant impact on global alcohol consumption, with an estimated 10% relative reduction from 2019 to 2020, but with different, and sometimes opposite, impacts in different countries and population groups

The COVID-19 pandemic had a significant impact on alcohol consumption globally, although the magnitude of the impact and its duration are still to be reliably defined. The estimates for 2020 that are currently available indicate that the total adult per capita consumption of alcohol decreased by 10.1% from 5.5 litres/adult in 2019 to 4.9 litres/adult in 2020 (see Table 2.1 and Figure 2.8) for details at regional and country levels). There was a geographical variation in the impact of COVID-19 on alcohol use. The change in APC was least for the Region of the Americas where APC decreased by 1.6% from 7.5 to 7.4 litres/adult and for the European Region where APC decreased by 4.2% from 9.2 to 8.8 litres/adult. The change in APC was the greatest for the Western Pacific Region, where APC decreased by 16.4% from 6.1 to 5.1 litres/adult and for the Eastern Mediterranean Region where APC decreased by 19.5% from 0.3 to 0.2 litres/adult. However, it should be noted that, while the relative decrease in the Eastern Mediterranean Region was the largest, the Eastern Mediterranean Region had the smallest absolute decrease in APC from 2019 to 2020.

Table 2.1 Changes in adult per capita consumption from 2019 to 2020 in WHO regions in litres of pure alcohol

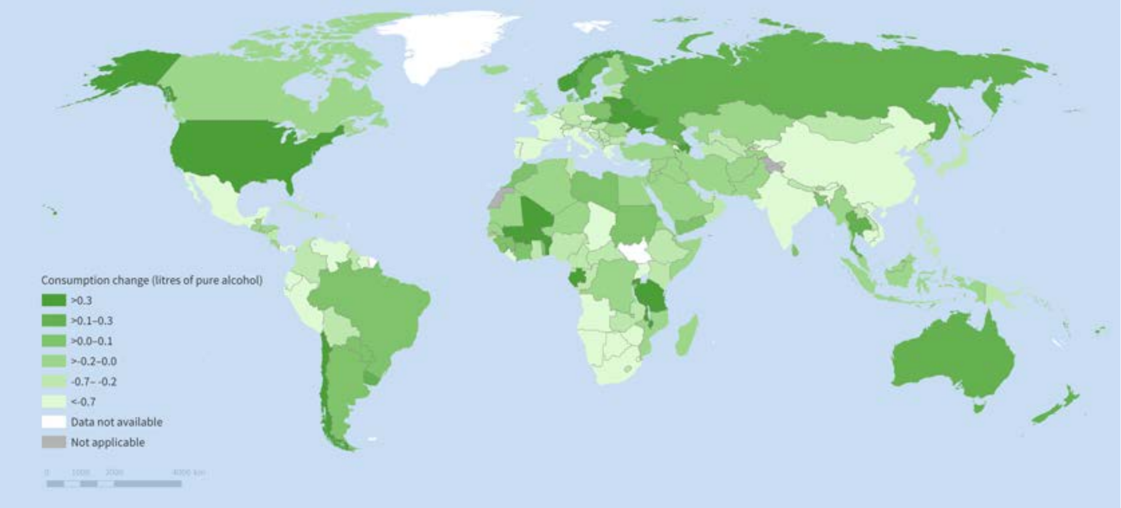
WHO region	2019[a]	2020[b]
AFR	4.5	4.2
AMR	7.5	7.4
EMR	0.3	0.2
EUR	9.2	8.8
SEAR	3.8	3.3
WPR	6.1	5.1
World	5.5	4.9

[a] Estimates for 2019 are based on 3-year (2017–2018–2019) averages.

[b] Estimates for 2020 are based on one year.

Changes in alcohol use have been observed in population surveys and cohort studies. Generally, alcohol use among young adults has decreased (Acuff et al., 2022; Sohi et al., 2022). This may be due to closures of onsite alcohol establishments, which may affect the alcohol use of people who typically consume alcohol on site. However, increases in alcohol use have also been observed for people with pre-existing alcohol use disorders and other mental health conditions (Roberts et al., 2021). This increase in alcohol use among heavy drinkers and people with existing alcohol use disorders, and the increase in alcohol consumption in some population groups as a result of self-treatment with alcohol of other health conditions (such as depression), was observed in several systematic reviews and meta-analyses (Roberts et al., 2021; Schmidt et al., 2021; Kilian et al., 2022; Acuff et al., 2022).

Figure 2.8 Changes in adult per capita consumption from 2019 to 2020 at country level



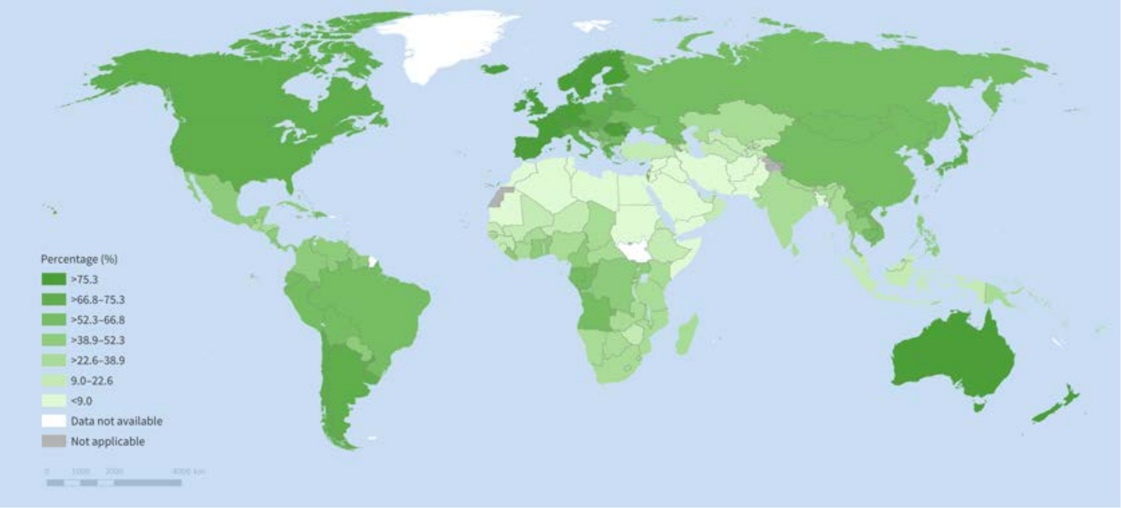
It should be noted that the estimation of data on drinking status, heavy episodic drinking and alcohol use disorders in 2020 is challenging as the effect of COVID-19 on survey participation is not known (for instance, if the amount of survey bias increased in 2020 due to COVID-19 lockdown protocols, trends in drinking status, heavy episodic drinking and alcohol use disorders may reflect changes in sample composition or response rates rather than true change).

It is predicted that the sales of alcohol will recover from the decreases observed during the COVID-19 pandemic in 2023 (IWSR, 2023); however, this predicted return to the pre-COVID-19 level is based on predicted total volume of alcohol sales and, due to increases in population, the per capita consumption of alcohol is expected to return to pre-COVID-19 levels (see Chapter 4).

2.1.3 In 2019 56% of the world's population aged 15+ abstained from drinking alcohol – the numbers of drinkers and abstainers in the world are relatively stable over time

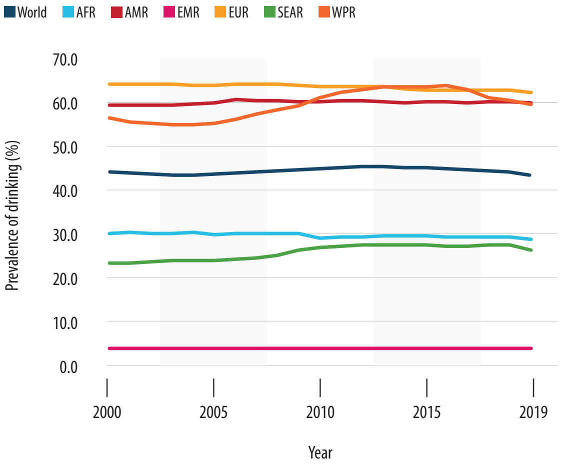
While alcohol is the world's most-used psychoactive substance with considerable risks to health, it has never been consumed by the majority of adults (traditionally defined as persons aged 15 years and above). In 2019, 56% of the world's population aged 15+ (65% of females, 48% of males) abstained from drinking alcohol. Abstention from alcohol can be divided into lifetime abstention (i.e. individuals who never consumed alcohol) and former drinkers (i.e. individuals who did not consume alcohol in the year 2019). However, the prevalence of alcohol use differs considerably by country and region. Prevalence of alcohol use is highest in the high-income regions of Australasia and Europe, where more than 3 out of 4 adults consume alcohol, and is lowest in a group of Muslim-majority countries which stretch from Northern Africa over the Middle East and Pakistan to Indonesia (Figure 2.9). Overall, in the WHO regions of the Americas, Europe and Western Pacific, more than 60% of the adults consume alcohol. Cultural factors, and largely religious factors, are behind significant differences in prevalence of drinking in populations.

Figure 2.9 **Twelve-month prevalence of alcohol use in 2019**



Prevalence of drinking is relatively stable over time and does not change quickly, either globally or by region (Figure 2.10). The biggest changes were increases in the Western Pacific Region up to 2016 and in the South-East Asia Region. The other WHO regions did not change more than three percentage points over the past 20 years.

Figure 2.10 Trends in prevalence of alcohol use 2000–2019, globally and by region



2.1.4 The level of alcohol consumption per capita among drinkers amounts on average to 27 grams of pure alcohol per day, which is associated with appreciably increased risks of numerous health conditions and associated mortality and disability

There are differences between estimates of total per capita consumption within any calendar year in populations aged 15+ years and total per capita consumption among drinkers only (based on the prevalence of current [past 12 months] drinking in the population). APC among drinkers is an important indicator for understanding the levels of alcohol consumption in populations that drink alcoholic beverages. If the same amount of alcohol is consumed by fewer people (i.e. in countries with lower prevalence of current drinking), the harm among drinkers will be higher. Thus, higher APC among drinkers indicates potentially higher harm per litre of alcohol consumed (Room & Rehm, 2023). APC in the world's population aged 15+ years generates the estimate of 12 grams of pure alcohol per day for each person aged 15+ years (about one "standard drink" of 0.3 L beer, a 0.125 L glass of wine or one shot [40 mL] of spirits), while the estimate for those who actually drink alcohol amounts to 27 grams of pure alcohol per day for each drinker globally.

Dose–response relationships between alcohol consumption and health risks are often presented at different levels of average alcohol consumption among drinkers (see section 2.2 of this chapter). Consequently, average alcohol per capita consumption among drinkers per day provides useful information in the context of health risks associated with different levels of alcohol exposure in populations of drinkers.

The data on APC among drinkers aged 15+ in WHO regions is presented in Table 2.2. APC among drinkers is highest in the African, European and South-East Asia regions, and lowest in the Eastern Mediterranean and Western Pacific regions. The high values in the African Region result from an overall high level of alcohol consumption coupled with a relatively high rate of abstainers. Overall, relative to the mean, the variation of APC among drinkers is smaller than the variation of APC.

Table 2.2 **Alcohol per capita (15+ years) consumption (in litres of pure alcohol and in grams per day) among drinkers by WHO region and the world, 2019**

WHO region	Current drinkers (%)	APC (in litres/year)	Grams/day
AFR	29.2	15.5	33.5
AMR	60.0	12.5	27.1
EMR	4.1	7.4	16.1
EUR	62.4	14.7	31.9
SEAR	27.6	14.0	30.3
WPR	60.4	9.8	21.3
World	43.8	12.4	26.7

Wealth of a region is not linked to APC among drinkers (see Table 2.3). The values for drinking among drinkers spread closely around the global mean of 12.35.

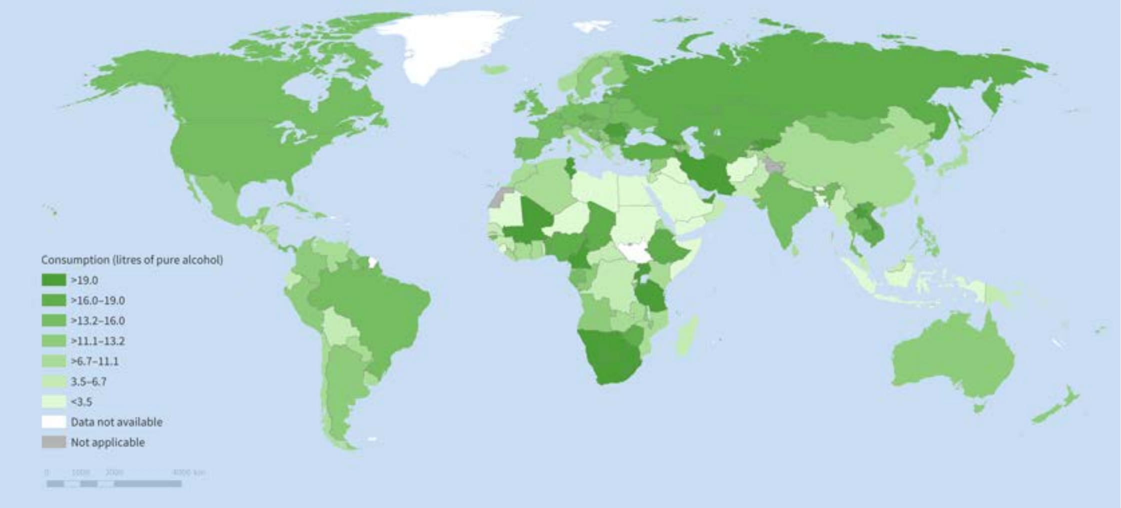
Table 2.3 **Alcohol per capita (15+ years) consumption (in litres of pure alcohol and in grams per day) among drinkers by World Bank income groups, 2019**

World Bank groups	Current drinkers (%)	APC (in litres/year)	Grams/day
Low income	24.6	11.6	25.1
Lower-middle income	26.1	14.3	30.9
Upper-middle income	54.8	10.9	23.6
High income	70.4	13.1	28.3

The trends of APC among drinkers are similar to the trends of APC in total populations as the prevalence of drinkers changed only slightly over the past decade (see section 2.1.8 of this chapter). The high-income regions of Europe, North America and countries such as Australia and Japan have relatively lower APC per drinker compared to low- and middle-income countries of Africa, Europe or South-East Asia. The fact that some Muslim-majority countries are among the countries with high APC per drinker levels may be part of the response bias to surveys: when abstinence is the norm, people may not readily admit to drinking, and thus in some countries the APC per drinker is high due to the possible underestimation of the number of drinkers. An overview of APC among drinkers around the world is presented in Figure 2.11.

The current global average consumption of 27 grams per day among drinkers indicates there are significant health risks associated with such a level of alcohol consumption. In addition, the distribution of total alcohol consumed among drinkers is skewed towards “heavy drinkers” – including people living with alcohol use disorders – where the levels of alcohol consumption per day can be substantially higher (≥60 grams per day) (see section 2.1.5 of this chapter).

Figure 2.11 Total alcohol per capita (15+) consumption among drinkers, 2019



2.1.5 In 2019, 17% of people aged 15+ years and 38% of current drinkers engaged in heavy episodic drinking or "binge drinking" (consuming at least 60g of pure alcohol on one or more occasions in the last month), while continuous heavy drinking was highly prevalent (6.7%) among men

The prevalence of age-standardized[1] heavy episodic drinking (HED, defined by consuming at least 60 grams of pure alcohol on one occasion once or more often in the last month) is an indicator that is included in several global monitoring frameworks (Box 2.2). In 2019, 10% of females and 24% of males aged 15 years and older, and 17% of all people aged 15+, had at least one such occasion in the last month. HED is highly prevalent in many countries, except for the Muslim-majority countries. The highest prevalence can be found in Central and Northern Europe, and in parts of Africa, Australasia and South America (see Figure 2.12).

Box 2.2 Heavy episodic and continuous drinking

Heavy episodic drinking (HED) is defined as the consumption of at least 60 grams of pure alcohol on one occasion, or more often, in the last month. Age-standardized HED indicates an age-adjusted proportion of the population that had at least one occasion of consumption of at least 60 grams of alcohol in the last month.

Heavy continuous drinking (HCD) is defined as average consumption of at least 60 grams of pure alcohol per day in the last year.

If only the proportion of drinkers with HED is considered, the prevalence rates are 27% for females, 45% for males and 38% for all adults.

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[1] Age standardization is based on WHO standard population (Ahmed et al., 2001).

Figure 2.12 Age-standardized prevalence of heavy episodic drinking, 2019

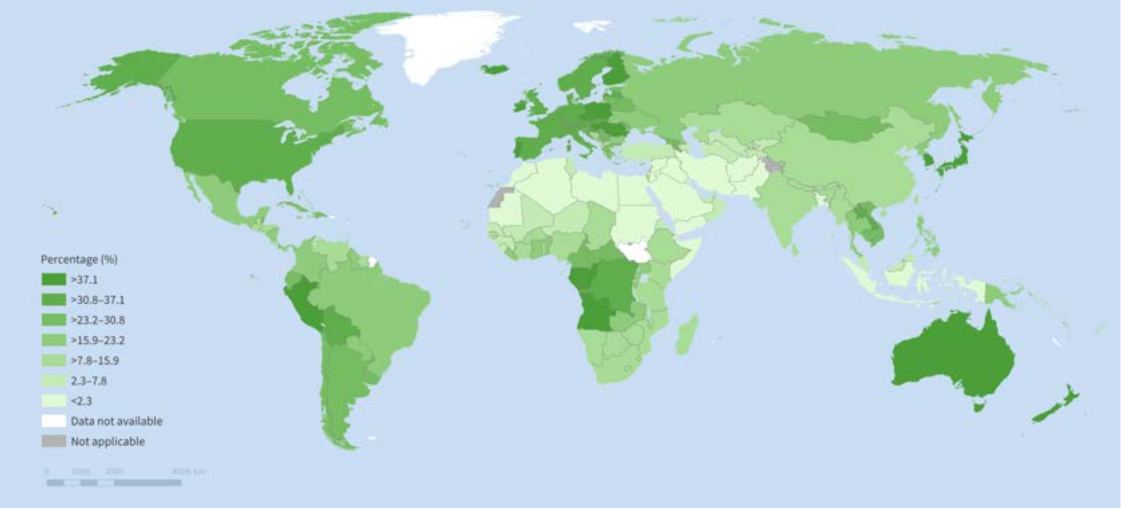


Figure 2.13 Trends of age-standardized heavy episodic drinking in the population aged 15 years and older, globally and by WHO region, 2000–2019

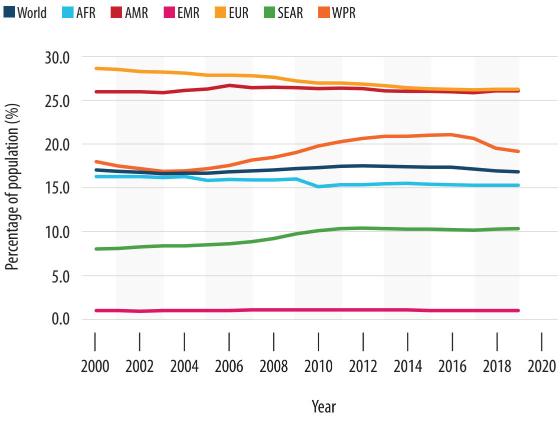


Figure 2.13 shows the development of this indicator over time for WHO regions. Overall, it has been relatively stable globally and in all WHO regions, with no region showing more than absolute 3% differences in prevalence over the past two decades. There are slow trends, however, with the European Region decreasing, the South-East Asia Region gradually increasing, and the Western Pacific Region increasing up to 2016 and then declining. These small changes mean that the voluntary goal of reducing HED by at least 10% between 2010 and 2025 (as included in the NCD monitoring framework) will be reached neither globally nor in any regions if current trends continue. Globally, between 2010 and 2019, the relative reduction in age-standardized HED was 3.4%. No region other than the Eastern Mediterranean Region reduced this indicator by more than 4% (albeit from a very low level with high uncertainty). If we analyse HED with current drinkers, the same conclusions are drawn.

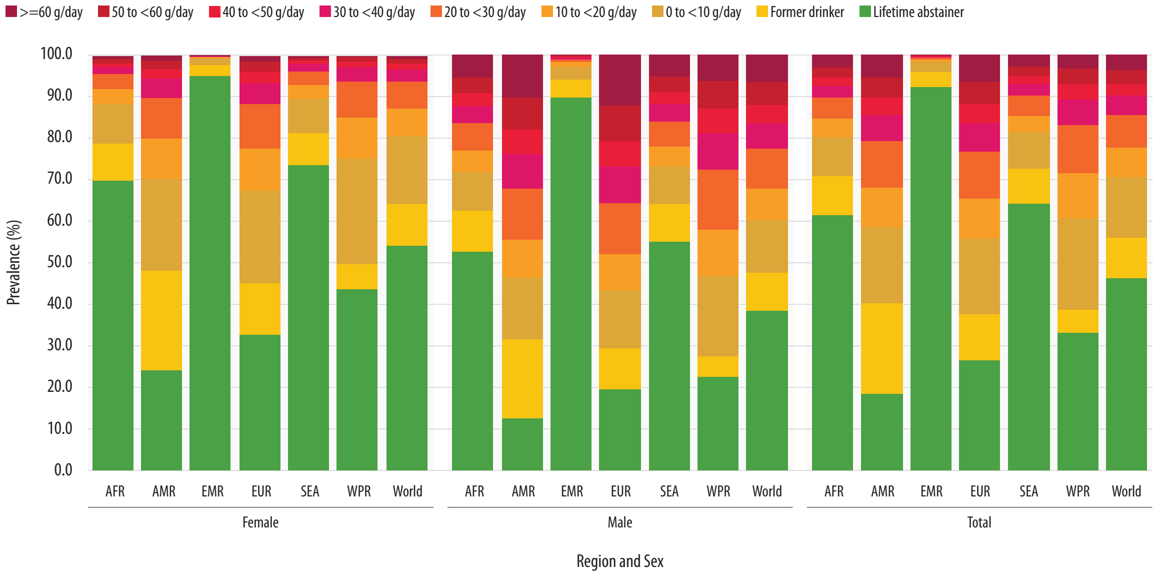
As all indicators for alcohol consumption, HED and HED among current drinkers is higher in males compared to females. This is true for all regions, for all countries, and globally as well (see Table 2.4).

Table 2.4 Prevalence (in %) of age-standardized heavy episodic drinking (HED) in the total population aged 15+ years and among drinkers (15+ years) by gender and WHO region, 2019

	Total population (15+)		Current drinkers (15+)	
WHO region	Females	Males	Females	Males
AFR	8.7%	22.2%	41.9%	57.3%
AMR	15.8%	35.9%	29.9%	52.4%
EMR	0.3%	1.4%	13.1%	23.6%
EUR	16.1%	36.2%	28.2%	51.3%
SEAR	5.1%	15.6%	27.5%	43.3%
WPR	10.8%	27.5%	21.6%	38.5%
World	9.7%	23.8%	26.8%	45.4%

In 2019, 3.6% of adults were identified as engaged in heavy continuous drinking (HCD), defined as consuming more than 60 grams of alcohol per day on average. Males had a higher prevalence of HCD at 6.7%, while females had a much lower prevalence at 0.6%. The highest rates of HCD were found in the European and Americas regions, where 6.6% and 5.5% of adults had such drinking patterns respectively (see the distribution for bands of drinking globally and for WHO regions in Figure 2.14). The pattern of HCD is often either an indication or a result of alcohol use disorder.

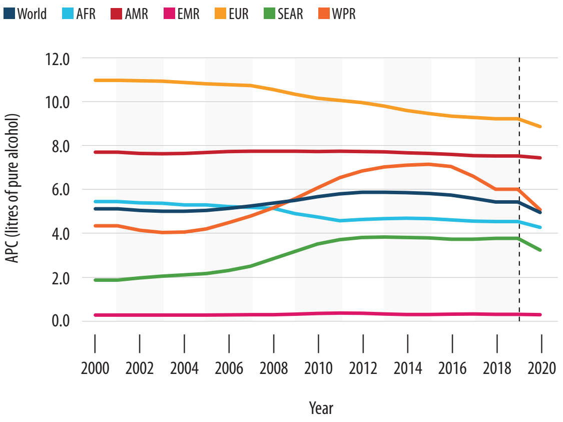
Figure 2.14 The prevalence of alcohol consumption by grams per day, 2019



2.1.6 Trends in total alcohol per capita consumption (APC) differ between WHO regions with a substantial decrease in Europe and a marked increase in APC in South-East Asia since 2000

Globally, the level of alcohol consumption has been relatively stable, with an increase in the first decade of this century and a slight decline after 2016, including a 10% reduction in the first year of the COVID pandemic. The following trends can be detected (from the region with the highest level of consumption to the region with the lowest) (Figure 2.15).

Figure 2.15 Trends of total alcohol per capita (aged 15+) consumption 2000–2020, globally and by WHO region*



* *Note:* 2020 figures are one-year (2020) estimates whereas for all previous years the figures are three-year moving averages. And do the same for figures 2.16 and 2.17.

The European Region reported reductions in adult per capita alcohol consumption over the past decades. The decrease was mainly driven by reduced alcohol consumption in the eastern part of the region, largely attributed to the implementation of strong alcohol control policies – particularly taxation increases in several countries of the region (Bedzuli et al., 2020). The per capita alcohol consumption in the Region of the Americas has remained stable overall. The Western Pacific Region had the highest variability of drinking levels over the past decades, mainly driven by the largest country in this region, China. While the increases up until 2015 can, in large part, be attributed to economic growth, the sharp decline after 2016 has often been attributed to the new laws and regulations and implementation/enforcement of existing alcohol control policies in recent years (such as on drink-driving) (Hu et al., 2022). Finally, there was a marked decrease in alcohol consumption during the first year of the COVID-19 epidemic (Li et al., 2023).

In the African Region, there was neither large economic growth to stimulate increases in consumption nor sufficient policies in place to decrease the level of alcohol consumption, resulting in a relatively stable level of consumption. In the South-East Asia Region, with India as the largest country, levels of alcohol consumption increased steadily until the COVID-19 pandemic began, due to economic growth coupled with a fractured response to control policies. Finally, in Muslim-majority countries of the Eastern Mediterranean Region, alcohol is often prohibited and, in general, a very low level of alcohol consumption has persisted over the past two decades, despite some loosening of alcohol control policies.

2.1.7 In all WHO regions gender differences in alcohol consumption are significant with no major changes over time globally

In all countries globally, the prevalence of alcohol consumption is higher in males than in females, but the difference varies with culture (Table 2.5) and economic wealth (Table 2.6). For instance, relatively fewer females traditionally consume alcohol in Asian countries. However, overall, a marked difference in the prevalence and level of drinking can be found in all WHO regions.

In countries with higher economic wealth, relatively more females consume alcohol (Table 2.6). This can be seen by the following indicator: in low- and lower-middle-income countries, for every female who drinks, almost two males are drinking (i.e. a ratio of male to female of 1.8 to 1). In upper-middle-income countries, the ratio is smaller – 1.5 to 1, and in high-income countries, the ratio is smallest with 1.2 to 1.

Table 2.5 Gender differences in alcohol consumption and prevalence of current drinking in WHO regions and the world, 2019

WHO region	APC (total) in litres of pure alcohol/year		Current drinkers (%)		APC per drinker in litres of pure alcohol/year		Average alcohol consumption per drinker per day (grams)	
	Males	Females	Males	Females	Males	Females	Males	Females
AFR	7.5	1.6	37.6%	21.0%	20.0	7.7	43.2	16.6
AMR	11.9	3.3	68.5%	51.9%	17.4	6.3	37.7	13.6
EMR	0.5	0.1	5.9%	2.2%	9.0	3.0	19.4	6.5
EUR	14.9	4.0	70.7%	54.9%	21.0	7.3	45.5	15.7
SEAR	6.4	1.2	36.3%	18.7%	17.7	6.7	38.2	14.5
WPR	9.6	2.5	71.8%	49.0%	13.2	4.9	28.6	10.6
World	8.7	2.2	52.2%	35.4%	16.6	6.1	36.0	13.2

APC = alcohol per capita consumption.

Table 2.6 Gender differences in alcohol consumption and prevalence of current drinking in World Bank income groups, 2019

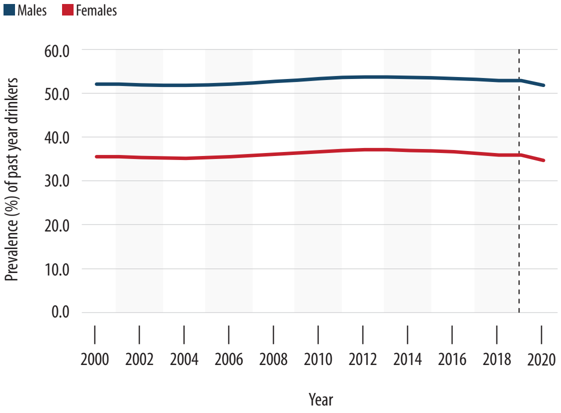
World Bank income groups	APC (total)		Current drinker (%)		APC per drinker		Average alcohol consumption per drinker per day (grams)	
	Males	Females	Males	Females	Males	Females	Males	Females
Low income	4.7	1.0	31.5%	17.9%	15.0	5.8	32.5	12.5
Lower-middle income	6.1	1.3	33.7%	18.4%	18.2	7.0	39.4	15.1
Upper-middle income	9.7	2.4	65.8%	44.0%	14.7	5.4	31.7	11.7
High income	14.4	4.2	76.9%	64.1%	18.7	6.5	40.4	14.1

APC = alcohol per capita consumption.

Figure 2.16 provides an overview of trends of prevalence of drinking by sex over the past 20 years. Overall, the ratio is very stable, and we do not see any indication of change globally, although in some low- and middle-income countries, with increasing economic prosperity, the gap between prevalence of male and female drinking became smaller.

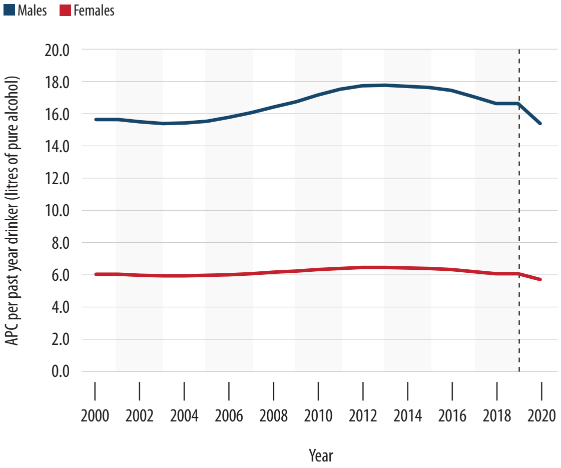
All alcohol-related indicators show higher values among males than females. Again, there are no significant changes in global trends on these indicators over time. For instance, APC per drinker did not change markedly worldwide over time, although there have been some regional changes (see Figure 2.17 for details on the global trends by sex).

Figure 2.16 Prevalence of drinking worldwide by sex, 2000–2020*



* *Note:* 2020 figures are one-year (2020) estimates whereas for all previous years the figures are three-year moving averages. And do the same for figures 2.16 and 2.17.

Figure 2.17 Alcohol per capita consumption per drinker by sex, 2000–2020*



* *Note:* 2020 figures are one-year (2020) estimates whereas for all previous years the figures are three-year moving averages. And do the same for figures 2.16 and 2.17.

2.1.8 In 2019 the prevalence of alcohol consumption among 15–19-year-olds was unacceptably high worldwide (22%) with very little gender differences and a tendency of increase from initially low levels in some regions

In 2019 the global prevalence of past-year drinking among those aged 15–19 years was 22.0% (23.5% among males and 20.5% among females 15–19 years of age). The prevalence of past-year drinkers among people 15–19 years of age ranged from 1.1% and 13.5% in the Eastern Mediterranean and African regions respectively, to 41.9% and 44.0% in the Americas and European regions respectively (see Table 2.7 for details).

Table 2.7 Prevalence of current drinkers among people 15–19 years of age from 2000 to 2019 by sex and World Health Organization region

Sex/ WHO region	Prevalence (%) of current drinkers					Change (%) 2000 to 2019
	2000	2005	2010	2015	2019	
Males						
AFR	15.8%	15.6%	15.0%	14.9%	14.7%	-7.2%
AMR	41.4%	42.9%	43.5%	43.4%	43.9%	6.0%
EMR	1.2%	1.2%	1.2%	1.2%	1.2%	2.0%
EUR	45.5%	45.5%	45.4%	45.2%	45.9%	0.8%
SEAR	9.8%	10.1%	12.0%	12.3%	12.3%	25.7%
WPR	32.4%	32.3%	38.0%	41.3%	39.2%	21.1%
World	23.4%	23.5%	24.5%	24.3%	23.5%	0.4%
Females						
AFR	13.3%	13.1%	12.6%	12.4%	12.2%	-7.7%
AMR	36.9%	38.4%	39.1%	39.1%	39.7%	7.7%
EMR	0.9%	0.9%	1.0%	1.0%	1.0%	2.9%
EUR	41.3%	41.4%	41.3%	41.2%	42.0%	1.6%
SEAR	8.0%	8.3%	9.8%	10.1%	10.1%	25.8%
WPR	27.8%	27.7%	32.9%	36.1%	34.2%	23.0%
World	20.5%	20.5%	21.3%	21.1%	20.5%	0.0%
Total						
AFR	14.5%	14.3%	13.8%	13.7%	13.5%	-7.4%
AMR	39.2%	40.7%	41.4%	41.3%	41.9%	6.8%
EMR	1.1%	1.1%	1.1%	1.1%	1.1%	2.4%
EUR	43.5%	43.5%	43.4%	43.3%	44.0%	1.2%
SEAR	8.9%	9.3%	10.9%	11.3%	11.2%	25.9%
WPR	30.2%	30.1%	35.6%	38.8%	36.9%	22.2%
World	22.0%	22.1%	23.0%	22.7%	22.0%	0.3%

Globally, the prevalence of past-year drinkers among people 15–19 years of age has remained stable from 2000 to 2019. However, substantial changes in the prevalence of current drinkers were observed at the regional level. The prevalence of current drinkers in Africa decreased by 7.4% from 2000 to 2019 (from 14.5% to 13.5% of people 15–19 years of age). Conversely, in the Western Pacific and South-East Asia regions the prevalence of current drinkers increased by 22.2% (from 30.2% to 36.9% of persons aged 15–19 years) and 25.9% (from 8.9% to 11.2% of persons aged 15–19 years) respectively.

2.1.9 Worldwide, distilled alcoholic beverages are the leading category in recorded alcohol consumption followed by beer and wines

In terms of alcohol consumption in litres of pure alcohol, spirits continue to be the most consumed alcoholic beverages in 2019, followed by beer, wine and other beverages. The proportions have changed only a little globally since 2010: spirits increased their proportion by about 4% from 43.8% to 45.4%, wine remained more or less stable, and beer decreased by 3%. The biggest proportional change was in "other" beverages, which decreased their proportion by 8.7% from 7.5% to 6.9%, with proportional decreases over 10% in the WHO's African, European, South-East Asia and Western Pacific regions. However, in all of these regions except for Africa, the absolute amount consumed is relatively small (see Table 2.8).

Table 2.8 Proportions of recorded alcohol consumption by beverage types, WHO region and the world, 2019

WHO region	Beer	Wine	Spirits	Other
AFR	36.3%	5.2%	13.2%	45.3%
AMR	53.8%	13.8%	31.5%	0.9%
EMR	40.0%	14.7%	42.3%	3.0%
EUR	40.0%	30.8%	27.5%	1.7%
SEAR	10.4%	0.4%	89.2%	0.0%
WPR	30.6%	4.2%	56.2%	9.1%
World	35.3%	12.4%	45.4%	6.9%

With respect to beverage consumption by wealth, there were big differences between the World Bank income groups in 2019 (see Table 2.9). Other beverages than beer, wine or spirits make up 50% of recorded consumption in low-income countries, but have less than a 10% share in more wealthier regions. For wine, the reverse is true: 27% of recorded consumption in high-income countries is wine, while less than 10% is wine in less rich countries. Beer has a market share of about 40% of the in upper-middle-income and high-income countries, 30% in low-income countries and 20% in lower-middle-income countries, whereas spirits dominate in middle-income countries and have nowhere less than an 18% market share.

Table 2.9 Proportion of beverage types in recorded alcohol consumption in 2019 by World Bank income groups

World bank income group	Beer	Wine	Spirits	Other
Low income	29.7%	1.2%	18.3%	50.7%
Lower-middle income	21.5%	1.3%	68.3%	8.8%
Upper-middle income	39.5%	6.3%	53.3%	1.0%
High income	39.2%	27.0%	24.7%	9.1%

2.2 Global status and trends in the health consequences of alcohol consumption

Alcohol consumption has a significant negative impact on the health of populations due to the psychoactive, toxic and dependence-producing properties of alcohol. The health effects of alcohol consumption are mainly due to the ethanol in alcoholic beverages. Ethanol affects the body through three main pathways: 1) toxic effects on organs and tissues; 2) intoxication due to its largely psychoactive properties leading to impairment of physical coordination, consciousness, cognition, perception, affect or behaviour; and 3) dependence, whereby drinkers have impaired self-control over their drinking behaviour, resulting in increased levels and particularly detrimental patterns of alcohol use (WHO, 2007; Rehm et al., 2017).

Other compounds contained in alcoholic beverages that affect health include acetaldehyde (a metabolite of alcohol), methanol, ethyl carbamate, heavy metals (including copper, iron, manganese, nickel, tin and zinc), which can be present in commercially produced, as well as informally or illegally produced alcoholic beverages (Pal et al., 2020).

When ingested, ethanol has impacts on multiple biological systems. As a result, the consumption of alcohol is causally linked to over 200 health conditions, including infectious diseases, malignant neoplasms, mental and behavioural disorders, neurological disorders, cardiovascular diseases, gastrointestinal diseases and injuries.

Table 2.10 outlines the disease and injury categories that are proved to be causally related to alcohol use. These diseases and injuries related to alcohol use include those that are 100% attributable to alcohol, as well as those where alcohol is a component cause (i.e. when alcohol use acts as a

Table 2.10 Health conditions associated with deaths and disability and causally related to alcohol consumption

Diseases and injuries included in the analysis
Detrimental
Communicable, maternal, perinatal and nutritional conditions
Tuberculosis, HIV/AIDS, sexually transmitted diseases, lower respiratory infections
Noncommunicable diseases
Lip and oral cavity, pharyngeal cancers (excluding nasopharyngeal), oesophageal cancer, colon and rectal cancers, liver cancer, breast cancer, cervical cancer, laryngeal cancer, alcohol use disorders, epilepsy, hypertensive heart disease, haemorrhagic stroke, alcoholic cardiomyopathy, cirrhosis of the liver, pancreatitis
Injuries
Unintentional injuries
Road traffic injuries, poisonings, falls, fire, heat and hot substances, drowning, exposure to mechanical forces, other unintentional injuries
Intentional injuries
Suicides, homicides
Beneficial (at low levels of alcohol consumption)*
Noncommunicable diseases
Diabetes mellitus (women only), ischaemic heart disease, ischaemic stroke

* No health benefits are observed for people who engage in heavy episodic drinking.
Not included in the analysis, but where alcohol has been shown to be causally related: e.g. major depressive disorders, atrial fibrillation and flutter, oesophageal varices, psoriasis.

contributory cause of a disease or injury or, in other words, as a risk factor for their development or occurrence) and when alcohol contribution can vary from 1% to almost 50% of the burden caused by those diseases or injuries (Rehm et al., 2017; WHO, 2014, 2018).

While alcohol use is a major risk factor for numerous health conditions, it is also important to note that for people who consume low amounts of alcohol and who do not engage in heavy episodic drinking (as compared to lifetime abstainers), alcohol may decrease the risk of diabetes mellitus (in women only), ischaemic heart disease and ischaemic stroke (Patra et al., 2010; Roerecke & Rehm, 2014; Larsson et al., 2016; Polsky & Arktur, 2017; Rehm et al., 2017; Neuenschwander et al., 2019; Wood et al., 2018; Ding et al., 2021). Although meta-analyses have observed a protective effect for women only, this may be due to men being more likely to engage in heavy episodic drinking (which may in turn lead to a risk increase in diabetes for men but not women) (Knott et al., 2015; Polsky & Akturk, 2017; Wood et al., 2018; Ding et al., 2021). People who engage in heavy episodic drinking experience an increase in diabetes mellitus, ischaemic heart disease and ischaemic stroke even if, on average, they consume low amounts of alcohol (Rehm et al., 2017; Patra et al., 2010; Roerecke & Rehm, 2014; Larsson et al., 2016; Piano, 2017).

At the same time, there are some health conditions that are 100% attributable to alcohol and for which alcohol use is the necessary and sufficient cause for their development. Table 2.11 provides a list of these conditions from the 11th revision of the International Classification of Diseases (ICD), and most of these conditions belong to the group of mental, behavioural and neurological disorders.

Table 2.11 ICD-11 codable (at 4-digit codes) health conditions which are 100% attributable to alcohol consumption (WHO, 2024a)

Mental, behavioural or neurodevelopmental disorders	
6C40.0	Episode of harmful use of alcohol
6C40.1	Harmful pattern of use of alcohol
6C40.2	Alcohol dependence
6C40.3	Alcohol intoxication
6C40.4	Alcohol withdrawal
6C40.5	Alcohol-induced delirium
6C40.6	Alcohol-induced psychotic disorder
6C40.7	Certain specified alcohol-induced mental or behavioural disorders (including alcohol-induced mood disorder and alcohol-induced anxiety disorder)
6C40.Y	Other specified disorders due to use of alcohol
6C40.Z	Disorders due to use of alcohol, unspecified
Fetal alcohol syndrome (as a part of a group of health conditions under 6A0.Y Other specified neurodevelopmental disorders)	
Diseases of the nervous system	
6D84.0	Dementia due to use of alcohol
8D44.0	Alcohol polyneuropathy
8D44.1	Alcohol myopathy
8D44.Y	Other specified alcohol-related neurological disorders
8D44.Z	Alcohol-related neurological disorders, unspecified
Diseases of the circulatory system	
Dilated cardiomyopathy due to alcoholism	

Table 2.11 *continued*

Diseases of the digestive system	
DB94.0	Alcohol fatty liver
DB94.1	Alcoholic hepatitis
DB94.2	Alcoholic liver fibrosis
DB94.3	Alcoholic cirrhosis of liver without hepatitis
DB94Y	Other specified alcoholic liver disease
DB94.Z	Alcoholic liver disease, unspecified
DC31.1	Acute alcohol-induced pancreatitis
DC32.3	Chronic alcohol-induced pancreatitis
Certain conditions originating in the perinatal period	
KA06.2	Fetus or newborn affected by maternal use of alcohol
Developmental anomalies	
Fetal alcohol syndrome (as a part of a group of health conditions under LD2F.0 Toxic or drug-related embryofetopathies)	
External causes of morbidity or mortality	
Alcohol poisoning (as a part of a group of health conditions under NE61 Harmful effects of or exposure to noxious substances, chiefly nonmedicinal as to source, not elsewhere classified)	
Alcohol poisoning (as a part of a group of health conditions under PH50 Exposure to or harmful effects of undetermined intent of alcohols, and under PD00 Intentional self-harm by exposure to or harmful effects of alcohols)	
Factors influencing health status or contact with health services	
QE10	Hazardous alcohol use

This section of the report provides an overview of the latest global estimates of the impact of alcohol consumption on population health in 2019 and the trends observed since the adoption of the Global strategy to reduce the harmful use of alcohol (2010) and the SDG 2030 agenda (2015), using key indicators included in the global monitoring frameworks.

2.2.1 The global burden of disease and injuries caused by alcohol consumption can be quantified for 31 health conditions on the basis of the available scientific evidence for the role of alcohol use in their development, occurrence and outcomes

The burden of disease and injuries is defined as the gap between current health status and an ideal situation in which everyone lives to old age free from disease and disability. Disease burden is usually quantified by using several indicators, including disability-adjusted life years (DALYs).

DALYs represent the sum of years of life lost due to premature mortality and years of life lost due to time lived in less than full health.

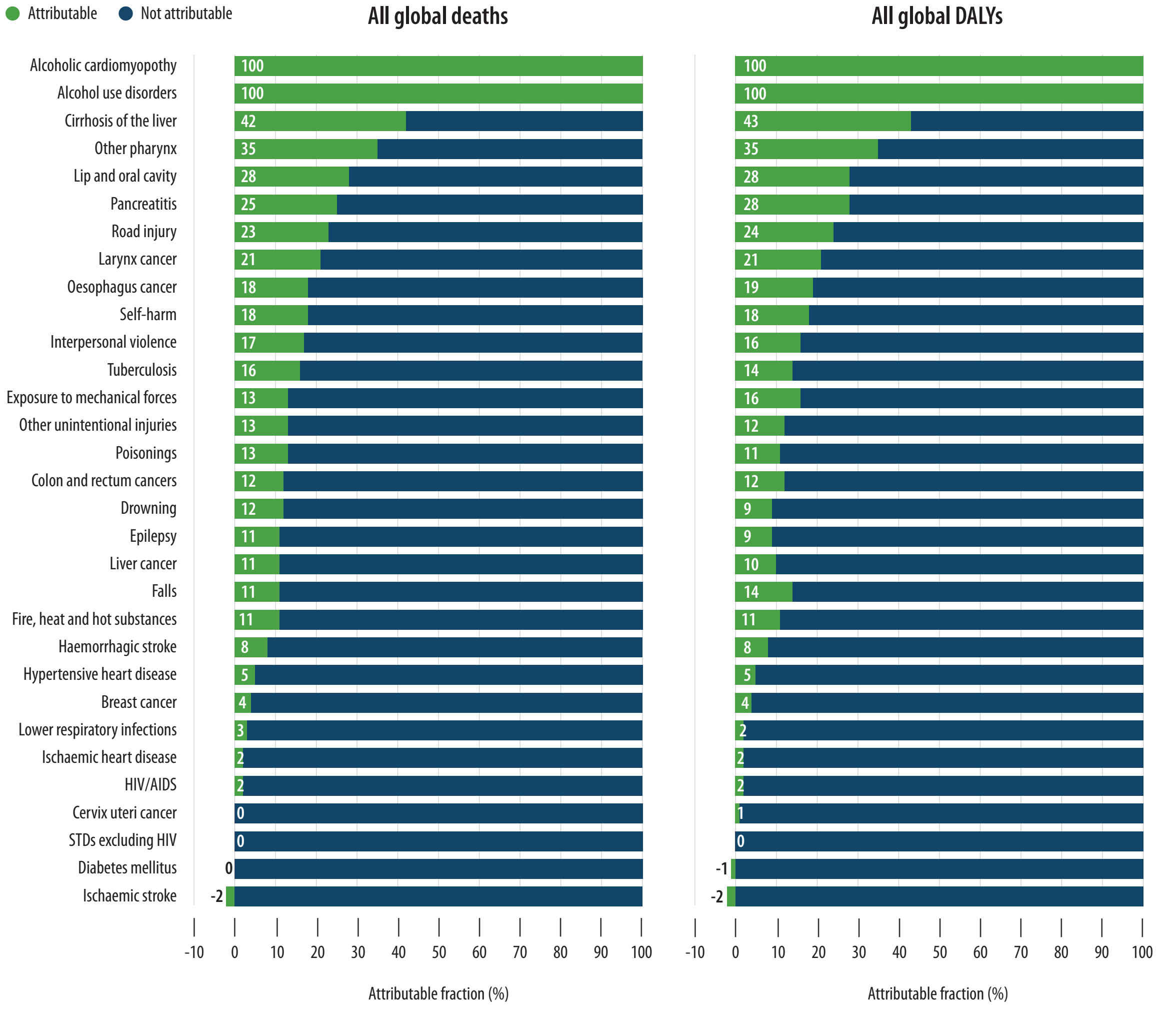
Alcohol-attributable deaths and DALYs are defined as the number of deaths and DALYs which are attributable to alcohol consumption on the assumption that those deaths and DALYs would not have happened without alcohol consumption.

Alcohol-attributable fractions (AAFs) reflect the contribution of alcohol consumption as a risk factor for disease or death and can be interpreted as the proportion of deaths or burden of disease which would disappear if there had been no alcohol consumption in populations. AAFs used in producing the estimates of alcohol-attributable burden for this report are included in Figure 2.20.

In comparison with previous WHO estimates of the alcohol-attributable disease burden for 2016 (WHO, 2018), two new categories of health conditions were added in producing the estimates of alcohol-attributable disease burden: sexually transmitted infections (excluding HIV) and cervical cancer (which is caused mainly by the sexual transmission of human papillomavirus [HPV]).

At the cause-specific level, the contribution of alcohol to disease- and injury-specific health burdens was 100% for AUDs (alcohol use disorders) and alcoholic cardiomyopathy. For liver cirrhosis, the contribution of alcohol was 42% of deaths and 43% of DALYs lost. In contrast, for sexually transmitted diseases, the contribution of alcohol was less than 1% for both deaths and DALYs lost. Interestingly, alcohol showed an overall protective effect on diabetes and ischaemic stroke at the global level, as observed in Figure 2.18. However, for ischaemic heart disease, alcohol had a net detrimental health effect, with 2% of deaths and DALYs lost from this disease being attributable to alcohol use.

Figure 2.18 **Alcohol-attributable fractions (AAFs) for selected causes of death, disease and injury, 2019**



DALYs = disability-adjusted life years.
STDs = sexually transmitted diseases.
Note: For ischaemic stroke and diabetes mellitus, the AAFs were negative, indicating that alcohol consumption has an overall beneficial effect on these diseases.

2.2.2 Worldwide, 2.6 million deaths were attributable to alcohol consumption in 2019, representing 4.7% of all deaths in that year

The number of deaths and DALYs that were caused and prevented by alcohol use were estimated by comparing the currently observed risks of mortality and morbidity to these same risks under a counterfactual scenario in which there was no historical consumption of alcohol (i.e. the number of deaths and DALYs lost that would not have occurred in the absence of alcohol consumption). These estimates incorporate both the detrimental and beneficial health effects of alcohol consumption. Although beneficial effects of low levels and lower risk patterns of alcohol consumption have been demonstrated for a very few health conditions and not for all people (see introduction to this section), the overall impact of alcohol consumption on population health is always detrimental, as evidenced by data presented in this report.

Alcohol consumption resulted in an estimated 2.6 million deaths (4.7% of all deaths) and 115.9 million DALYs (4.6% of all DALYs) in 2019, largely due to noncommunicable diseases, injuries and mental health conditions (Table 2.12 and Figure 2.19).

Table 2.12 Alcohol-attributable deaths and disability-adjusted life years (DALYs) lost, by cause in 2019

	Deaths			Disability-adjusted life years (DALYs) lost		
Cause	Alcohol-attributable deaths	Population-attributable fraction (%) of deaths	Percentage (%) of all deaths attributable to alcohol	Alcohol-attributable DALYs	Population-attributable fraction (%) for DALYs	Percentage (%) of all deaths attributable to alcohol
All causes	2 624 000	4.7	100.0	115 900 000	4.6	100.0
Communicable Maternal, perinatal and nutritional conditions	284 000	2.8	10.8	11 800 000	1.7	10.2
Noncommunicable diseases	1 617 000	4.0	61.6	60 500 000	3.8	52.2
Malignant neoplasms	401 000	4.3	15.3	10 700 000	4.4	9.2
Diabetes mellitus	-5000	-0.3	-0.2	-400 000	-0.6	-0.4
Alcohol use disorders	156 000	100.0	6.0	19 300 000	100.0	16.7
Epilepsy	13 000	11.4	0.5	1 200 000	9.1	1.0
Cardiovascular diseases	474 000	2.7	18.0	10 300 000	2.7	8.9
Digestive diseases	578 000	23.6	22.0	19 400 000	22.2	16.8
Injuries	724 000	16.4	27.6	43 600 000	16.8	37.6
Unintentional	521 000	16.5	19.8	33 100 000	17.3	28.5
Intentional	203 000	16.3	7.7	10 500 000	15.3	9.1

Deconstructed, 89.5 million DALYs were due to premature mortality – i.e. years of life lost (YLL) – representing 5.3% of all YLL. A further 26.4 million DALYs lost were due to morbidity – i.e. years of life lived with disability (YLD) – representing 3.2% of all YLD.

Among the 230 three-digit ICD-10 codes that are alcohol-related, digestive tract or gastrointestinal diseases, unintentional injuries, cardiovascular diseases and malignant neoplasms were the leading contributors to the estimated 2.6 million alcohol-attributable deaths in 2019, responsible for 22.0%, 19.8%, 18.0% and 15.3% of these deaths, respectively. Unintentional injuries, digestive diseases, AUDs, and communicable diseases were the leading contributors to the burden of disease and injury caused by alcohol, responsible for 28.5%, 16.7%, 16.6% and 10.2% of all alcohol-attributable DALYs, respectively (Figure 2.20).

Figure 2.19 Percentage (in %) of alcohol-attributable deaths, as a percentage of all alcohol-attributable deaths, by broad disease category, 2019

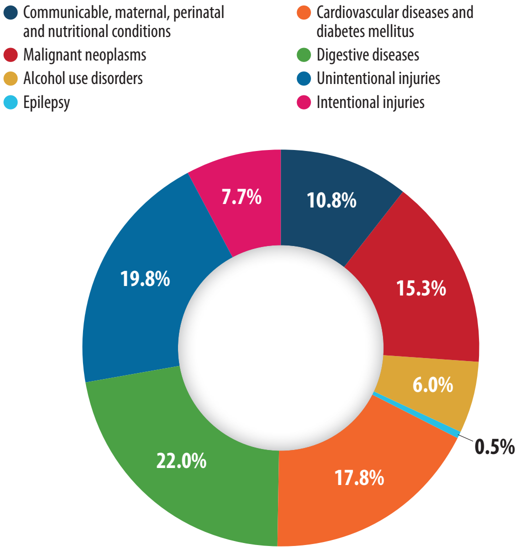
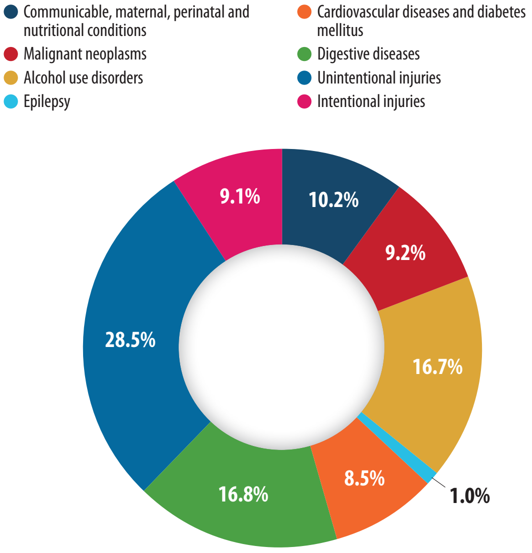


Figure 2.20 Percentage (in %) of all alcohol-attributable disability-adjusted life years (DALYs), by broad disease category, 2019



Alcohol contributed to 2.8% and 1.7% of all deaths and DALYs from communicable, maternal, perinatal, and nutritional conditions, respectively. It also contributed to 4.0% and 3.8% of all noncommunicable disease deaths and DALYs. For injury deaths and DALYs, alcohol contributed to 16.4% and 16.8%, respectively. Notably, alcohol also led to 4.3% and 4.4% of all deaths and DALYs from malignant neoplasms, 2.7% of all cardiovascular deaths and DALYs, and 23.6% and 22.2% of all digestive disease deaths and DALYs, respectively.

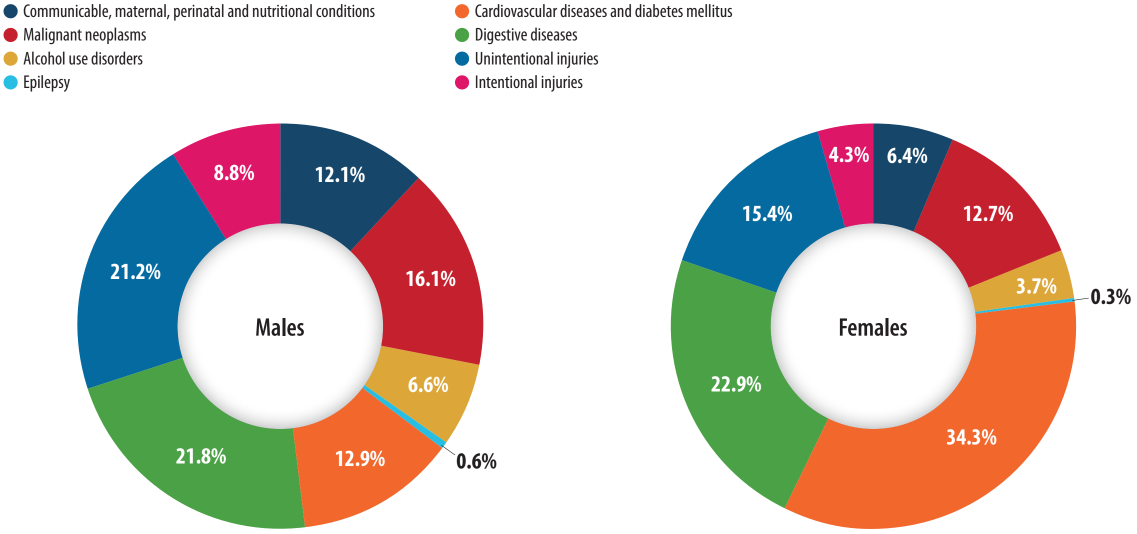
Alcohol consumption had a substantial impact on the harm caused to others, particularly through road injuries. In 2019, a total of 156 000 deaths and 10.0 million DALYs were attributable to alcohol-related road injuries caused by someone else's drinking.

2.2.3 The alcohol-attributable disease burden is heaviest among males: 2 million alcohol-attributable deaths and 6.9% of all DALYs among males, and 0.6 million deaths and 2.0% of all DALYs among females in 2019

As presented in section 2.1.7, alcohol consumption is more prevalent among males than females and the levels of alcohol use are higher among males than females in all WHO regions. These gender differences are also reflected in the estimates of alcohol-attributable disease burden where gender differences in the estimates of alcohol-attributable deaths and DALYs among males and females are even more pronounced.

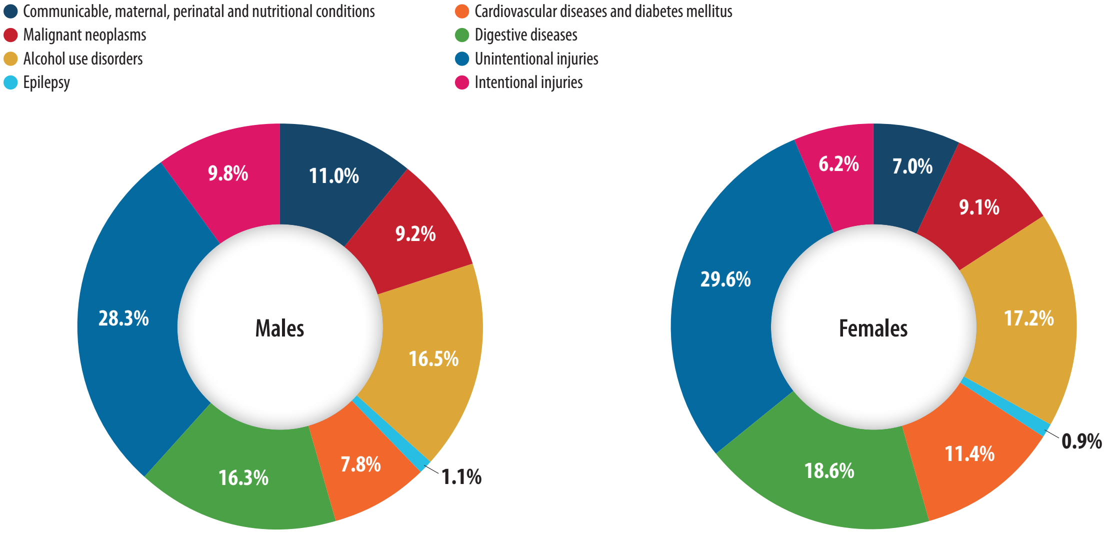
In 2019, alcohol was responsible for 2.0 million deaths and 92.8 million DALYs lost among males globally, accounting for 6.7% and 6.9% of all deaths and DALYs lost, respectively. Among females, the numbers were 0.6 million deaths and 23.2 million DALYs lost, representing 2.4% and 2.0% of all deaths and DALYs lost globally. The main causes of alcohol-attributable deaths among males were digestive diseases (439 000 deaths), unintentional injuries (427 000 deaths) and malignant neoplasms (326 000 deaths). Among females, the primary causes of alcohol-attributable deaths were cardiovascular diseases (231 000 deaths), digestive diseases (139 000 deaths) and unintentional injuries (93 000 deaths) (Figure 2.21).

Figure 2.21 Percentage (in %) of alcohol-attributable deaths, as a percentage of all alcohol-attributable deaths among males and females, by broad disease category, 2019



Regarding the alcohol-attributable burden of disease expressed in DALYs, the primary causes among males were unintentional injuries (26.2 million DALYs), alcohol use disorders (15.3 million DALYs) and digestive diseases (15.1 million DALYs). Among females, the leading causes of alcohol-attributable burden of disease were unintentional injuries (6.8 million DALYs), digestive diseases (4.3 million DALYs) and cardiovascular diseases (4.0 million DALYs) (Figure 2.22).

Figure 2.22 Percentage (in %) of all alcohol-attributable disability-adjusted life years (DALYs) among males and females, by broad disease category, 2019



2.2.4 The highest levels of alcohol-attributable deaths per 100 000 persons are observed in the WHO African and European regions

For direct comparisons of alcohol-attributable disease burden across regions, countries or income groups, it is necessary to estimate the rates of age-standardized alcohol-attributable deaths and DALYs. Rates of age-standardized (or age-adjusted) alcohol-attributable deaths and DALYs refer to a weighted average of the age-specific death or DALY rates per 100 000 persons, where the weights are the proportions of persons in the corresponding age groups of the WHO standard population (Ahmad et al., 2001).

The age-standardized burden of disease and injury attributable to alcohol consumption varies across WHO regions (Figures 2.23 and 2.24). The age-standardized alcohol-attributable burden of disease and injury was highest in the WHO European Region (52.9 deaths and 2337 DALYs lost per 100 000 people), followed by the WHO African Region (52.2 deaths and 2182 DALYs lost per 100 000 people), and lowest in the WHO Eastern Mediterranean Region (8.6 deaths and 336 DALYs lost per 100 000 people).

Figure 2.23 Age-standardized alcohol-attributable deaths per 100 000 people by WHO region and the world, 2019

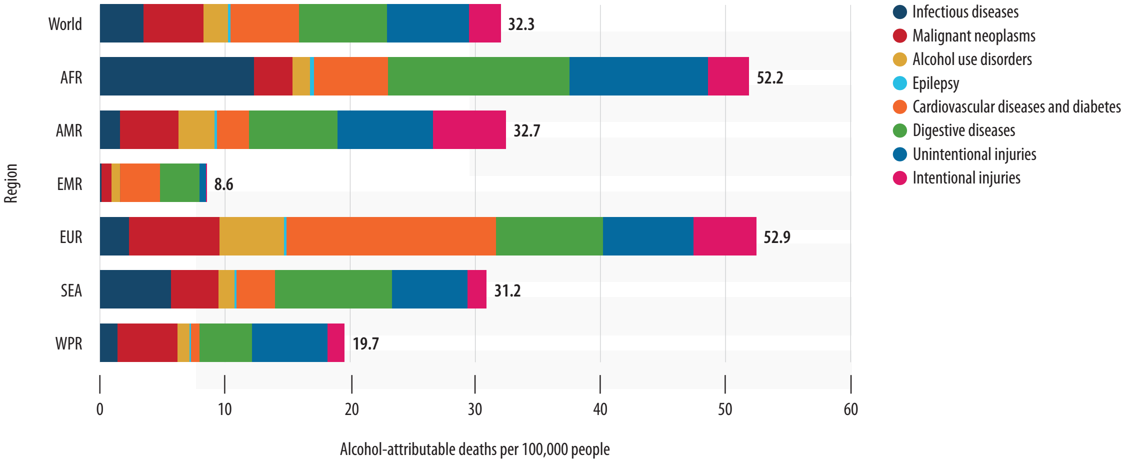
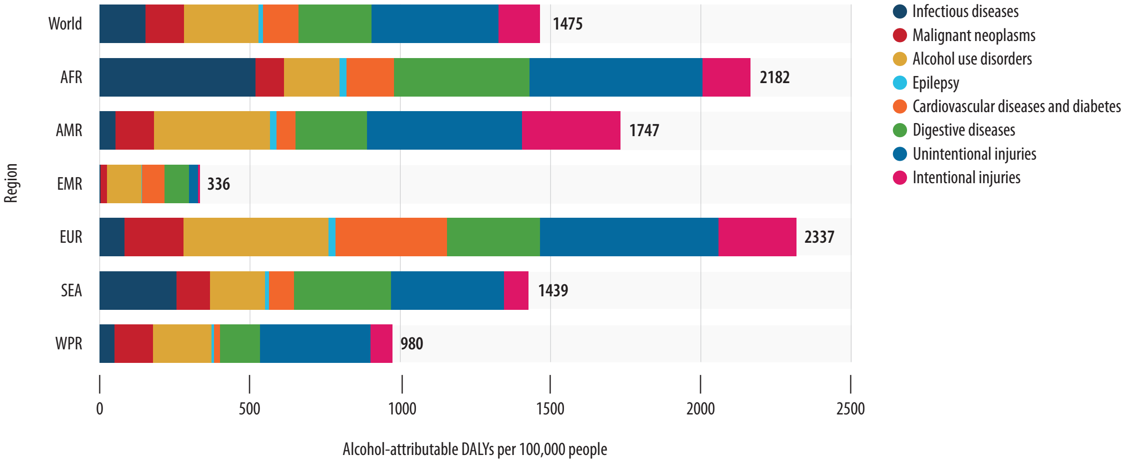


Figure 2.24 Age-standardized alcohol-attributable DALYs per 100 000 people by WHO region and the world, 2019



The alcohol-attributable burden of disease and injury in the European Region was due, in part, to a large burden of disease caused by AUDs, cardiovascular diseases, diabetes and unintentional injuries. Conversely, the alcohol-attributable burden of disease and injury in the African Region was partly due to a large burden of disease caused by tuberculosis, digestive diseases and unintentional injuries. Furthermore, the alcohol-attributable burden of malignant neoplasms was markedly higher in Europe compared to Africa. Similar age-standardized burdens in the African and European regions contrast with the levels of alcohol consumption in these regions, which were higher in the European Region (9.2 litres per adult) compared to the African Region (4.5 litres per adult).

Age-standardized alcohol-attributable deaths per 100 000 population by WHO region and the world are presented in Figures 2.23 and 2.25, and percentage of alcohol-attributable deaths from all deaths worldwide in 2019 is presented in Figure 2.26.

Age-standardized alcohol-attributable DALYs lost per 100 000 population by WHO region and the world are presented in Figures 2.24 and 2.27, and the percentage of alcohol-attributable DALYs from all DALYs lost worldwide in 2019 is presented in Figure 2.28.

Figure 2.25 **Age-standardized alcohol-attributable deaths per 100 000 population worldwide, 2019**

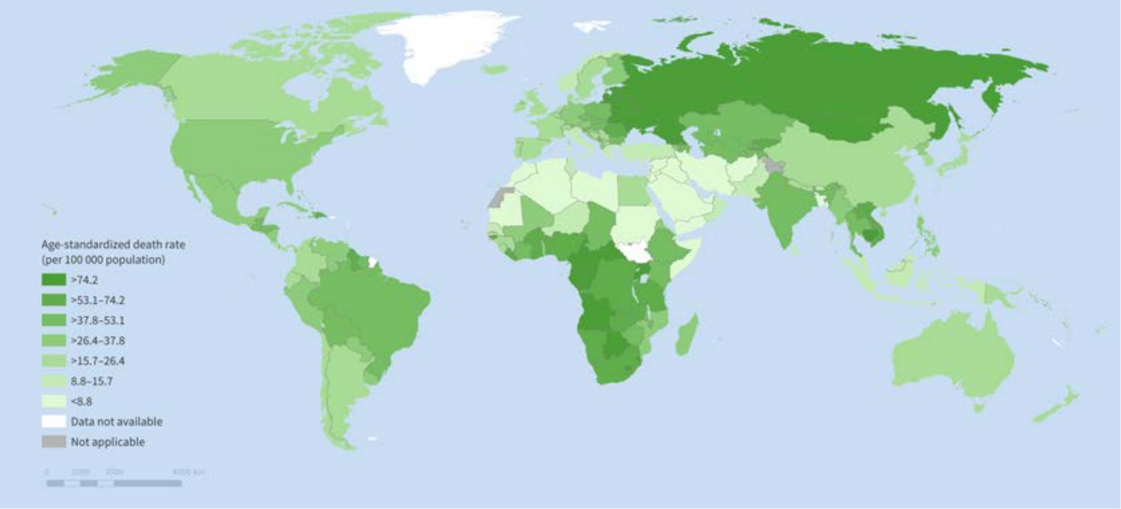


Figure 2.26 **Percentage of alcohol-attributable deaths from all deaths worldwide, 2019**

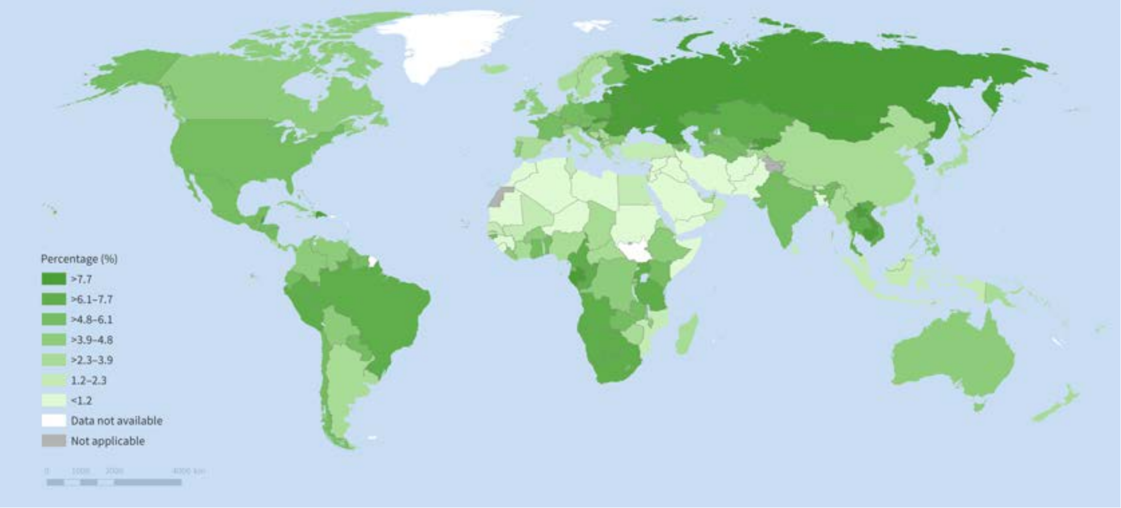


Figure 2.27 Age-standardized alcohol-attributable disability-adjusted life years (DALYs) lost per 100 000 population worldwide, 2019

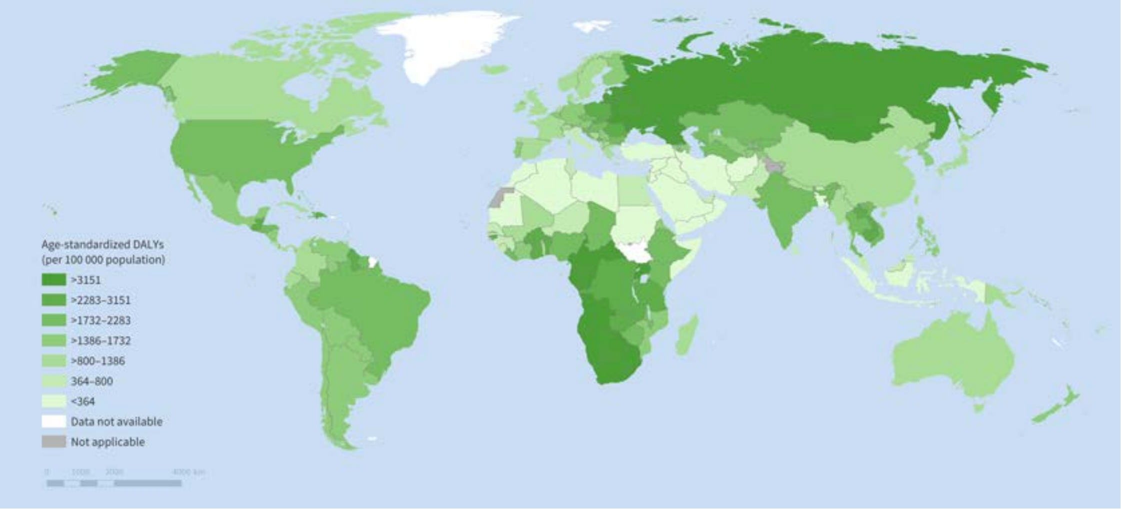
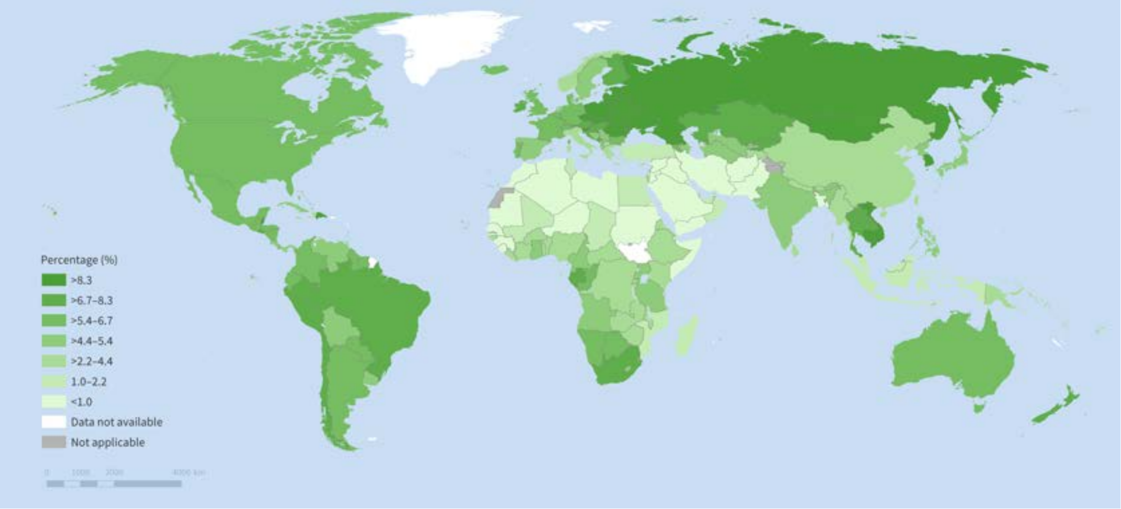


Figure 2.28 Percentage of alcohol-attributable disability adjusted life years (DALYs) lost from all DALYs lost worldwide, 2019



2.2.5 Globally, an estimated 400 million people, or 7% of the world's population aged 15 years and older, live with alcohol use disorders, and an estimated 209 million (3.7% of the adult world population) live with alcohol dependence, with substantial differences in the numbers of people affected in different WHO regions

Globally, in 2019, AUDs, alcohol poisonings and fetal alcohol syndrome (FAS) caused an estimated 156 000 deaths (representing 6.0% of all alcohol-attributable deaths) and 19.3 million DALYs lost (representing 16.6% of all alcohol-attributable DALYs lost).

According to WHO nomenclature, AUDs include two diagnostic categories of ICD-11: alcohol dependence and harmful pattern of alcohol use. The estimates presented in this section are based on the data available for prevalence of "harmful use of alcohol", as defined in ICD-10.

In 2019, an estimated 400 million people aged 15 years and older had an AUD (representing 7.0% of adults), and 209 million people aged 15 years and older lived with alcohol dependence (representing 3.7% of all people aged 15+ years). The past 12-month prevalence of AUDs and alcohol dependence varied globally (see Figure 2.29) and by WHO region (Figure 2.30), with the prevalence of AUDs being highest in the European Region (10.7% of people aged 15+ years) and in the Region of the Americas (10.2%), and the prevalence of AUDs being lowest in the Eastern Mediterranean Region (0.5% of people aged 15+ years). Prevalence of alcohol dependence also varied by WHO region, being most prevalent in the European Region (5.8%) and the Region of the Americas (5.3%), and least prevalent in the Eastern Mediterranean Region (0.3%).

Figure 2.29 Prevalence of alcohol use disorders among persons 15+ years worldwide, 2019

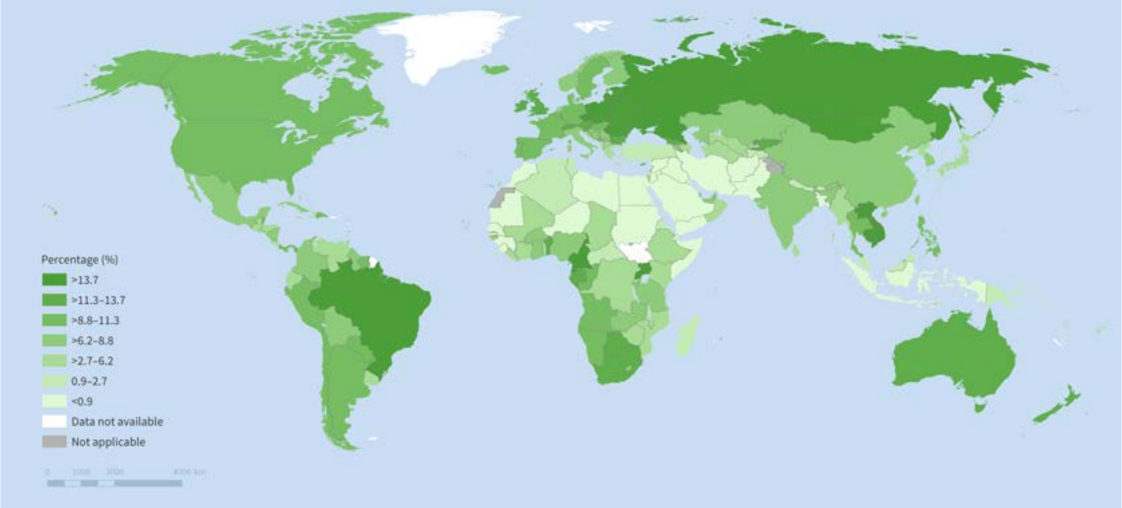
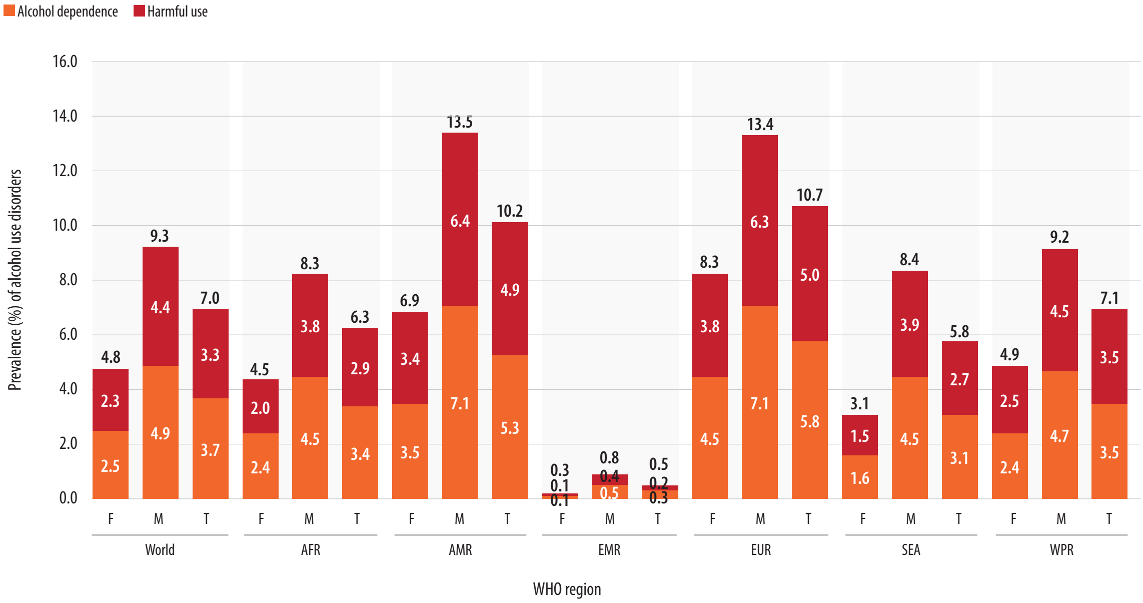
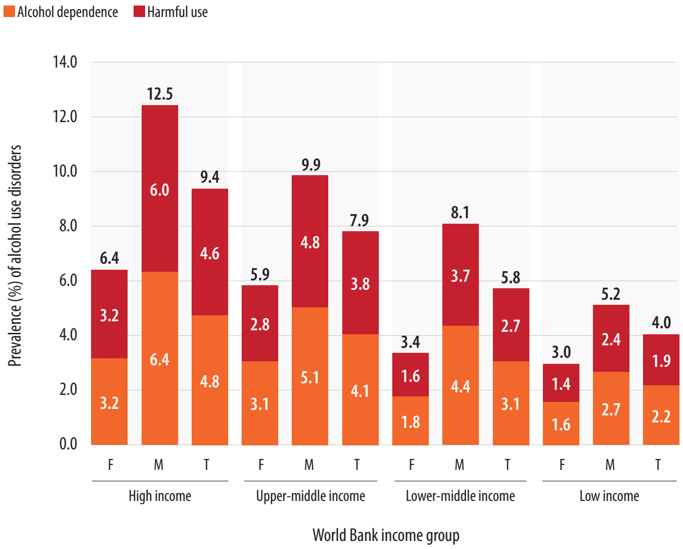


Figure 2.30 Prevalence (in %) of alcohol use disorders (AUDs) among persons 15+ years, by sex, WHO region and the world, 2019



The prevalence of AUDs also showed a large variation by sex, with 264 million males aged 15 years and older (9.3% of all males in this age category) and 136 million females aged 15+ years (4.8% of females in this age category) having an AUD, and 139 million males aged 15 years and older (4.9% of all males in this age category) and 70 million females aged 15+ years (2.5% of all females aged 15+ years) having an AUD. For males, the highest prevalence of AUDs was observed in the African Region (13.5% of males 15+) and the European Region (13.4% of males aged 15+ years); among females, the highest prevalences of AUDs were in the Region of the Americas (5.1% of females aged 15+ years) and the Eastern Mediterranean Region (3.5% of females aged 15+ years).

Figure 2.31 Prevalence (in %) of alcohol use disorders (AUDs) among persons 15+ years, by sex and World Bank income groups, 2019

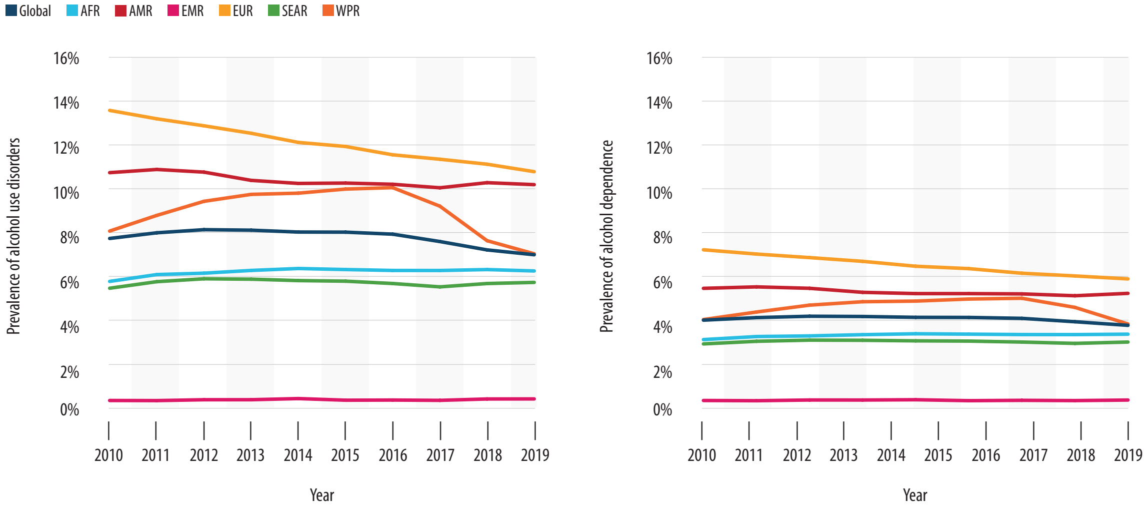


Prevalences of AUDs differed by World Bank income groupings, with the highest prevalence observed in high-income countries (9.4%) and the lowest prevalence observed in low-income countries (4.0%). A similar pattern was observed by sex for harmful alcohol use and for alcohol dependence (Figure 2.31) .

2.2.6 There has been a decreasing trend in the prevalence of alcohol use disorders worldwide since 2010 driven by decreases in the regions of the Americas, Europe and the Western Pacific, while an increasing trend is observed in the African, Eastern Mediterranean and South-East Asia regions

The prevalence of AUDs decreased from 7.8% in 2010 to 7.0% in 2019, and the prevalence of alcohol dependence decreased from 4.1% in 2010 to 3.7% in 2019. The prevalence of AUDs increased in the African Region (8.8% relative increase), Eastern Mediterranean Region (6.9% relative increase) and the South-East Asia Region (5.3% relative increase). Conversely, from 2010 to 2019 the prevalence of AUDs decreased in the Region of the Americas (5.3% relative decrease), the European Region (20.6% relative decrease) and the Western Pacific Region (12.8% relative decrease) (Figure 2.32).

Figure 2.32 Prevalence of alcohol dependence and alcohol use disorders from 2010 to 2019 by WHO region



2.2.7 The burden of age-standardized mortality (death rates) and morbidity (DALY rates) from alcohol consumption per litre of alcohol consumed is highest in low-income countries, followed by lower-middle-income countries, and is lowest in high-income countries

The age-adjusted alcohol-attributable burden of disease showed a clear gradient across World Bank income groupings. The alcohol-attributable burden of disease in 2019 was highest in low-income countries (37.1 deaths and 1578.0 DALYs lost per 100 000 people) and lowest in high-income countries (26.3 deaths and 1404.8 DALYs lost per 100 000 people) (Tables 2.13 and 2.14). This is in direct contrast to alcohol use, whereby the APC for low-income countries was 2.9 litres per adult and the APC for high-income countries was 9.2 litres per adult (see section 2.1 of this chapter). Consequently there is a large gradient in the age-adjusted alcohol-attributable harms per 100 000 people per litre of APC (i.e. the harms caused by a litre of alcohol consumed in a country), with low-income countries experiencing 13.0 deaths and 552.2 DALYs lost per 100 000 people per litre of alcohol consumed, and high-income countries experiencing 2.9 deaths and 152.2 DALYs lost per 100 000 people per litre of alcohol consumed (See Box 2.3).

Table 2.13 Age-standardized alcohol-attributable fractions for and alcohol-attributable deaths per 100 000 population and litre of per capita alcohol consumption by World Bank income groups, 2019

Region	Population attributable fraction (%)	Age-standardized alcohol-attributable deaths per 100 000	Age-standardized alcohol-attributable deaths per 100 000 and litre of APC
Global	4.7	32.3	5.9
World Bank region			
Low income	3.1	37.1	13.0
Lower-middle income	4.5	36.3	9.8
Upper-middle income	5.4	32.3	5.3
High income	4.8	26.3	2.9

Table 2.14 Age-standardized alcohol-attributable fractions for and alcohol-attributable DALYs lost per 100 000 population and litre of per capita alcohol consumption by World Bank income groups, 2019

Region	Population attributable fraction (%)	Age-standardized alcohol-attributable DALYs lost per 100 000 people	Age-standardized alcohol-attributable DALYs lost per 100 000 and litre of APC
Global	4.6	1474.8	270.4
World Bank region			
Low income	2.4	1578.0	552.2
Lower-middle income	3.9	1524.3	409.9
Upper-middle income	6.0	1465.9	241.9
High income	6.1	1404.8	152.2

Box 2.3 Alcohol use, alcohol-attributable mortality and socioeconomic status

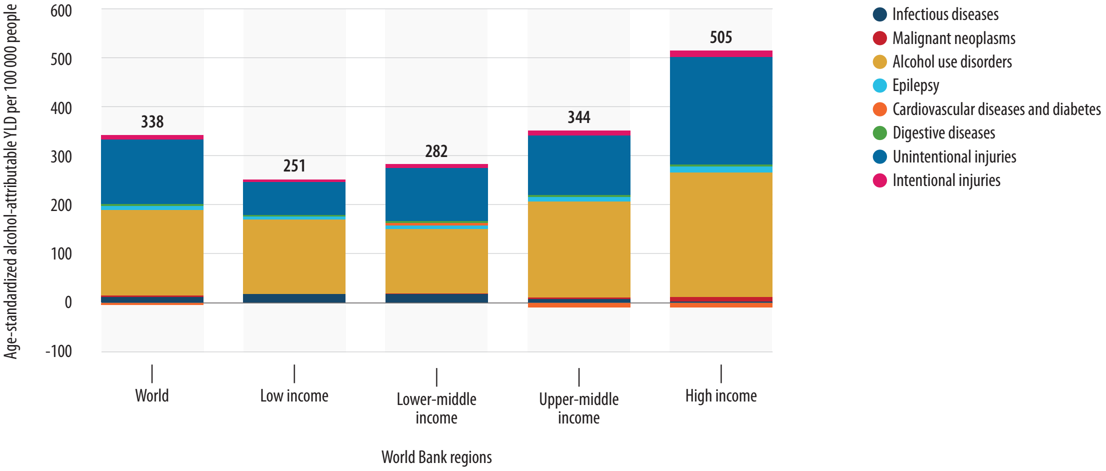
Disparities in alcohol-attributable mortality by socioeconomic status have been observed in numerous high-income countries (Probst et al., 2015). However, alcohol use (both patterns and volume) among people of lower socioeconomic status is similar to or lower than that among people of higher socioeconomic status (Bellis et al., 2016). Potential explanations for the differential impact of alcohol use on people of different socioeconomic status is the clustering of other behavioural risk factors which interact with alcohol use (including diet, physical inactivity, obesity and smoking) among people with lower socioeconomic status (Bellis et al., 2016). Furthermore, people of lower socioeconomic status often experience barriers to accessing health services (even in countries with public health insurance programmes) and often drink alcohol in risky environments – both of which increase the risk of alcohol-attributable injuries (Morley et al., 2017).

The differential impact of alcohol use also leads to socioeconomic inequalities in mortality. A systematic review of cohort studies found that alcohol use explained up to 27% of the socioeconomic inequalities in mortality. When separated by dimensions of alcohol use, heavy episodic drinking has a higher impact on socioeconomic inequalities compared to the total volume of alcohol use (Probst et al., 2020).

2.2.8 The health burden expressed in years of healthy life lost due to ill-health or disability from alcohol consumption per litre of alcohol consumed is highest in high-income countries due, in part, to the high prevalence of alcohol use disorders and high rates of ill-health and disability associated with alcohol-related unintentional injuries

One of the indicators used in estimating the burden of diseases and injuries is “years of healthy life lost due to disability” (YLD). This indicator reflects the disease burden due to disability or ill-health. One YLD represents the equivalent of one full year of healthy life lost due to disability or ill-health. In 2019 the age-standardized YLD rate per 100 000 people was highest in high-income countries and lowest in lower-middle-income countries, partly due to higher prevalence of AUDs and associated disability in high-income countries (Figure 2.33). Furthermore, high-income countries also experience a high disability burden caused by non-fatal unintentional injuries compared to low- and middle-income countries.

Figure 2.33 Alcohol-attributable years of healthy life lost due to alcohol-attributable disability (YLDs) in 2019, by income group and the world



2.2.9 People of younger age are disproportionately affected by alcohol consumption with the highest proportion (13.0%) of alcohol-attributable deaths from all deaths in 2019 among persons of 20–39 years

Globally, in 2019, alcohol was responsible for 6.7% of all premature mortality (i.e. deaths among people 69 years of age and younger). People of younger ages were disproportionately affected by alcohol compared to people of older ages, with the proportion of alcohol-attributable deaths from all deaths being greatest among persons aged 20–39 years; 13.0% of all deaths among these persons (i.e. 457 000 deaths) were attributable to alcohol consumption.

The proportion of deaths attributable to alcohol consumption by age also varied by WHO region (Figure 2.34). In the African Region, the proportion of deaths attributable to alcohol consumption remained high for people who were older in age, while people aged 25–29 years experienced the greatest proportional burden (10.8% of all deaths); this burden remained high even among people aged 60–64 years (7.4% of all deaths). The proportions of deaths attributable to alcohol consumption were highest among those aged 20–24 years in the Region of the Americas and the Western Pacific Region, while these proportions were highest among those aged 30–34 years in the European and South-East Asia regions.

Figure 2.34 **Percentage (in %) of alcohol-attributable deaths of total deaths by age group and sex in WHO regions and the world, 2019**

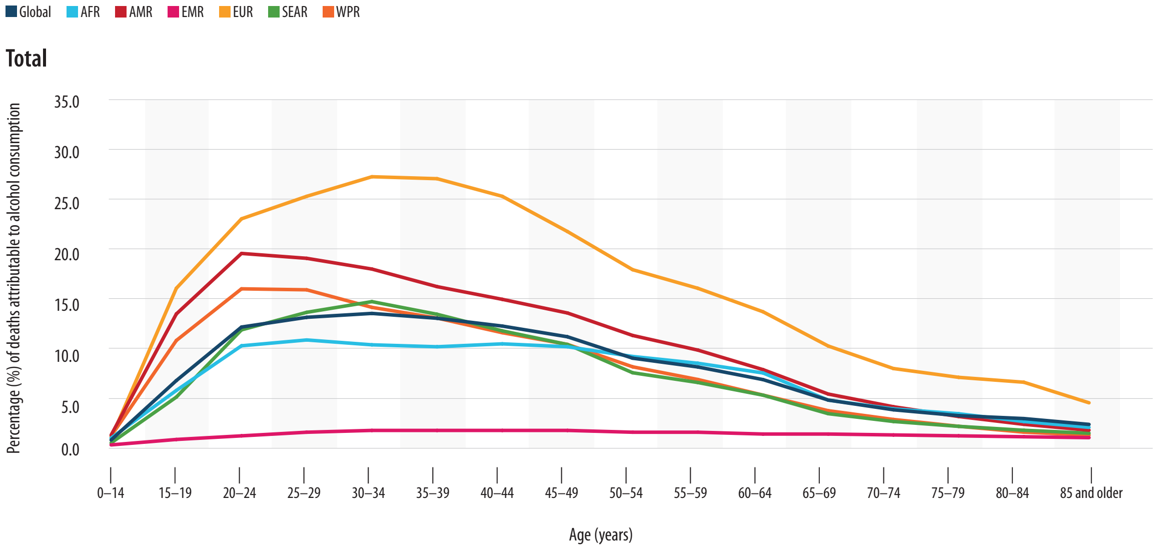
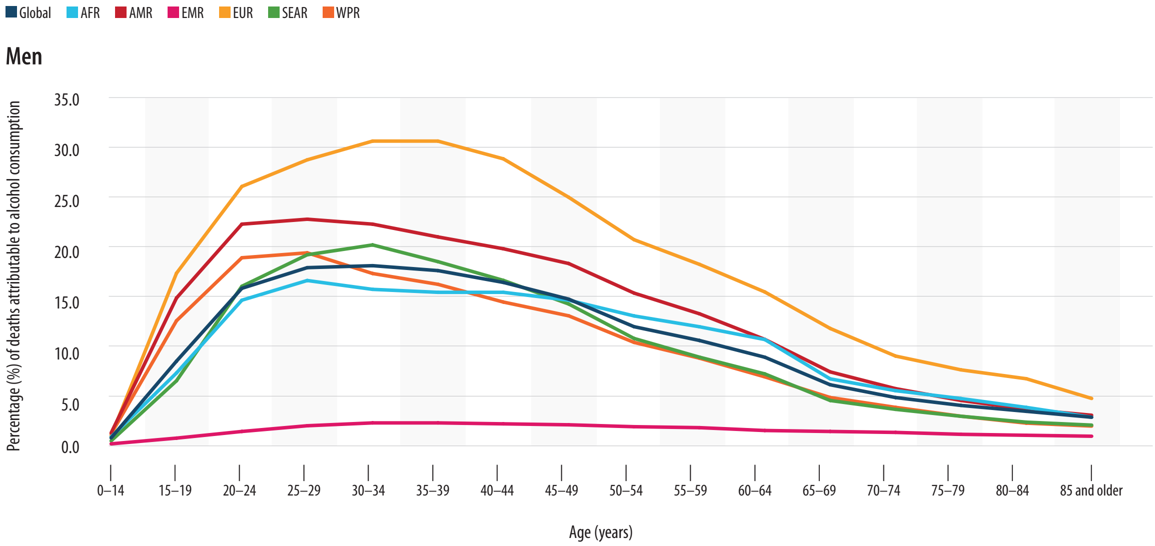
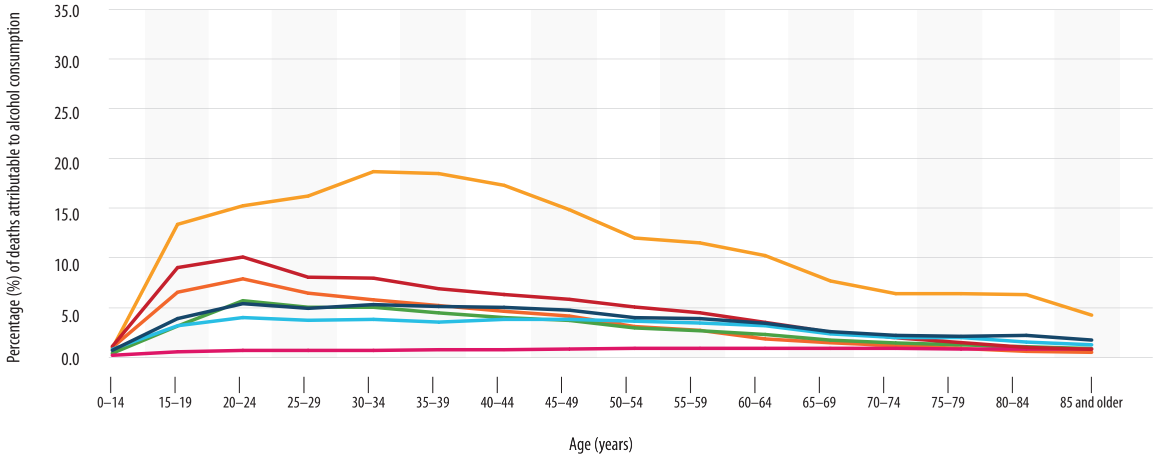


Figure 2.34 *continued*



Women

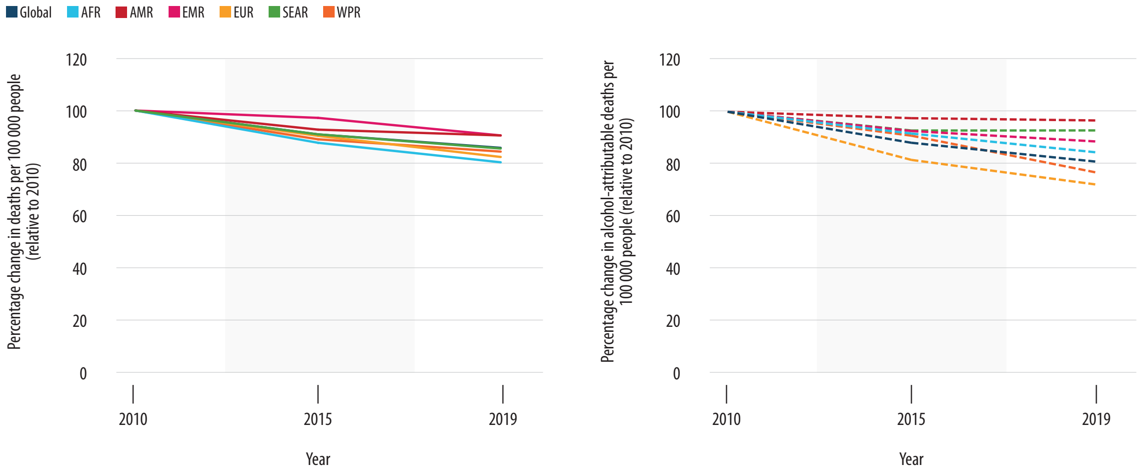


2.2.10 From 2010 to 2019, the number of deaths attributable to alcohol per 100 000 people decreased by 20.2% – greater than the overall decrease in total deaths worldwide for the same period of time (14.8%); similarly a decrease in the number of alcohol-attributable DALYs lost within the same period (18.3%) was larger than the observed decrease in all-cause DALYs lost (14.0%)

For comparison purposes, the alcohol-attributable burden of disease in 2010 was estimated using the most up-to-date estimates of alcohol consumption and the same methodology as that used to produce the 2019 estimates of the alcohol-attributable burden. The total number of deaths from all causes increased globally by 6.5% from 51.9 million in 2010 to 55.3 million in 2019. In contrast, the total number of alcohol-attributable deaths decreased by 2.5% globally from 2.7 million in 2010 to 2.6 million in 2019. As with the absolute decrease in the number of deaths attributable to alcohol consumption, there was a decrease in the proportion of alcohol-attributable deaths between 2010 (5.2%) and 2019 (4.7%).

After adjusting for population ageing, the age-adjusted deaths from all causes per 100 000 people decreased from 778.2 in 2010 to 663.3 in 2019, and the age-adjusted alcohol-attributable deaths per 100 000 people decreased from 40.5 in 2010 to 32.3 in 2019 (Figure 2.35).

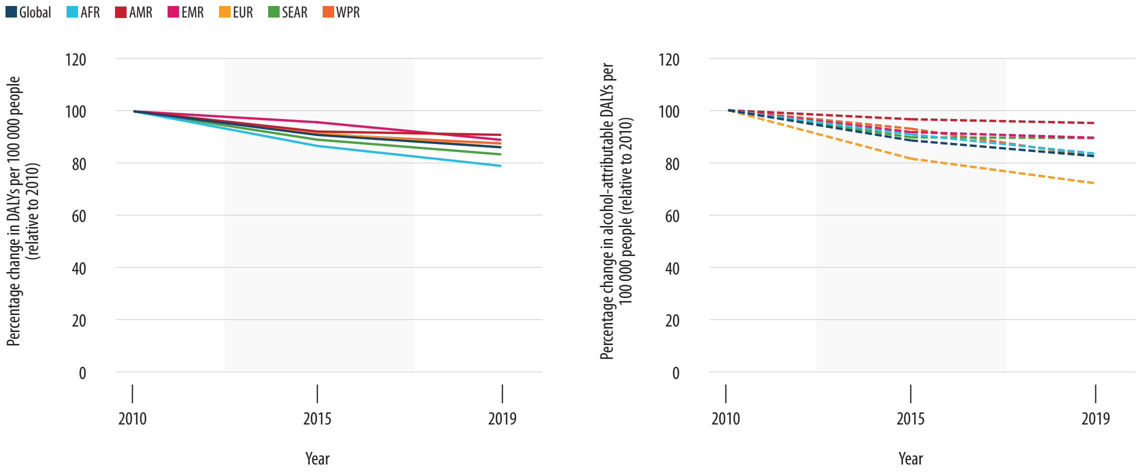
Figure 2.35 **Change (in %) in age-adjusted deaths per 100 000 people from 2010 to 2019 by WHO region (2010 estimates – 100%)[a]**



[a] Changes in deaths per 100 000 people are based on the data from the World Health Organization global health estimates.

Unlike deaths, the burden of disease remained relatively constant from 2010 to 2019 (2.543 billion DALYs lost versus 2.525 billion DALYs lost, respectively). Similarly, the overall burden of disease attributable to alcohol consumption decreased slightly, from 120.7 million DALYs lost in 2010 to 115.9 million DALYs lost in 2019, representing 4.7% and 4.6% of all DALYs lost in 2010 and 2019, respectively. However, this stability in alcohol-attributable DALYs lost may have been driven by population ageing (Figure 2.36).

Figure 2.36 **Changes (in %) in age-adjusted DALYs per 100 000 people from 2010 to 2019 by WHO region (2010 estimates – 100%)**



After adjusting for population ageing, the age-adjusted DALYs lost from all causes per 100 000 people decreased from 37 102 in 2010 to 31 911 in 2019, and the age-adjusted alcohol-attributable DALYs lost decreased from 1786 in 2010 to 1475 in 2019 (Figure 2.36).

The most substantial decline in the alcohol-attributable burden of deaths per 100 000 people was observed in the European Region with a 29.1% decrease between 2010 and 2019, followed by the Western Pacific Region with a 24.4% decrease during the same period. Notably, these reductions exceed the respective decreases in all-cause mortality for the European Region (17.7%) and the Western Pacific Region (15.8%) during the same period. The drop in the age-standardized alcohol-attributable burden of disease for the European Region is linked to a decline in alcohol-related harm in Eastern Europe, resulting from the implementation of WHO best-buy policies (Neufeld et al., 2021). Similarly, the decrease in the alcohol-attributable burden of disease for the Western Pacific Region is associated with a decline in alcohol-related harm in China, potentially due to government policies aimed at reducing corruption, such as a ban on drinking among military personnel and prohibition of government officials from consuming alcohol while on duty (Hu et al., 2022). All regions have also experienced a decrease in all-cause deaths and DALYs per 100 000 people due to improvements in the prevention of communicable diseases, improvements in treatment and access to treatment for communicable and noncommunicable diseases, and improvements in injury prevention.

The reduction in age-standardized mortality attributable to alcohol from 2010 and 2019 is notably pronounced for lower-middle-income and upper-middle-income countries (15.6% and 30.7% respectively) (Figure 2.37). This decrease exceeds reductions in age-standardized all-cause mortality for lower-middle-income and upper-middle-income countries (13.9% and 18.1% respectively). For high-income countries, reductions in age-standardized mortality attributable to alcohol from 2010 and 2019 (10.9%) were similar to reductions in age-standardized alcohol-cause mortality (9.5%). Reductions in age-standardized mortality attributable to alcohol from 2010 to 2019 in low-income countries (7.8%) were less than reductions in age-standardized alcohol-cause mortality from 2010 to 2019 (15.7%). Similar trends were observed for changes in alcohol-attributable disability-adjusted years of life lost by World Bank income groups (Figure 2.38).

Figure 2.37 Change (in %) in age-adjusted deaths per 100 000 people from 2010 to 2019 by World Bank income group (2010 estimates – 100%)

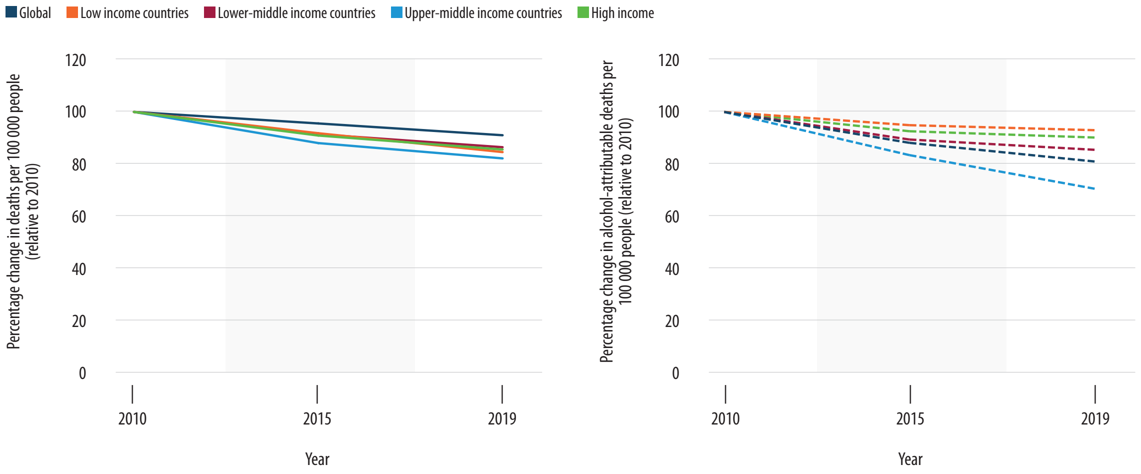
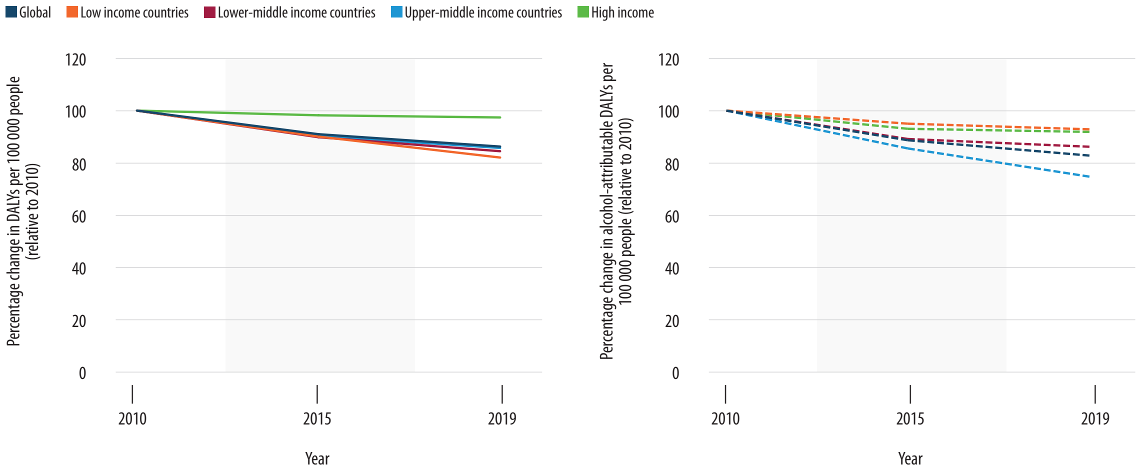


Figure 2.38 Change (in %) in age-adjusted DALYs per 100 000 people from 2010 to 2019 by World Bank income group (2010 estimates – 100%)



2.3 Alcohol policies

As demonstrated in Section 2.2 of this chapter, the global health burden due to alcohol consumption is very high and requires appropriate policy and programme responses at all levels. The Global strategy to reduce the harmful use of alcohol, which was endorsed by the Sixty-third World Health Assembly in May 2010, provides the overall global policy framework for reducing alcohol-related harm. The Global alcohol action plan 2022–2030 endorsed by the Seventy-fifth World Health Assembly in May 2022 aims to strengthen the implementation of the Global strategy by accelerating actions at all levels, and by supporting and complementing national responses to the public health problems caused by the harmful use of alcohol.

In the absence of international legally binding frameworks for alcohol beverage production, trade and distribution, strong alcohol policies are Member States' first line of defence against alcohol-related harm. The priority for setting and maintaining such policies is often embodied in an official national alcohol policy instrument adopted by a legislative or executive body. Beyond a written national policy, the next steps in alcohol policy emphasized by WHO entail effective policy implementation in line with the proposed actions included in the Global alcohol action plan. Achievement of tangible results in reduction of alcohol-related harm through policy interventions requires implementation of high-impact and cost-effective strategies and interventions included in the SAFER package (WHO, 2019). Most important in this package are the "best buys", the most effective and cost-effective interventions: addressing alcohol pricing through excise and other policies, strengthening restrictions on alcohol availability, and enforcing bans or comprehensive restrictions on alcohol marketing (WHO, 2024b). Public health warning labels offer Member States another opportunity to balance the information environment with messaging about the potential impact of alcohol consumption on health and safety. Finally, advancing and enforcing drink-driving countermeasures is also a critical and potentially life-saving intervention.

This section reviews the status of achievement of effective policies in each of these areas among WHO Member States. It then reviews the overall situation regarding progress towards these policies, as well as information reported by Member States regarding alcohol industry interference as a key barrier to the adoption of and progress towards evidence-based alcohol policies.

2.3.1 The percentage of countries reporting a written national alcohol policy has increased by 13% over the last decade; in 2019 56% of reporting countries had national alcohol policies in place

The presence of a written national alcohol policy is often evidence of a commitment by a Member State to prioritize reduction of alcohol consumption and related problems. Although much more often needs to be done than compiling and releasing a policy document, written national alcohol policies can serve as foci and catalysts for national action.

In 2008, 53 countries (43% of reporting countries) reported having a written national alcohol policy. The number of countries with such policies grew steadily by 3–5 percentage points every three years, reaching 56% in 2019. This absolute 13% increase represents 16 more countries with a written national policy, and the steady increase in these documents suggests a growing global commitment to addressing alcohol consumption and related harms.

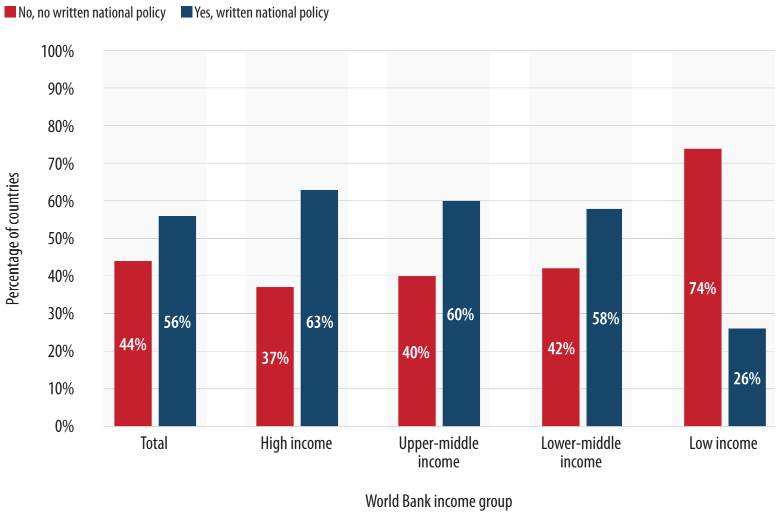
However, a closer look at these data shows that, although there have been gains, commitment at the national level has been inconsistent. Between 2008 and 2019, 36 countries enacted a new written national alcohol policy. However, 20 of the 53 countries that reported having a policy in 2008 no longer had one by 2019. Middle-income countries seem to have been most active at both ends of the spectrum: most (61%, n=22) of the new written national alcohol policies were enacted by middle-income countries, but middle-income countries also accounted for nearly half (45%, n=9) of the countries whose written policies lapsed. In fact, middle-income countries accounted for most of the gain in the number of Member States reporting such policies. In low- and high-income countries, progress in enacting new written national alcohol policies was marred by the number of countries that had policies at one point but had lost them by 2019 – four low-income countries enacted a new policy, but three terminated an existing one, while 10 high-income countries enacted a new national written alcohol policy and eight terminated an existing one (Table 2.15).

Table 2.15 Progress towards written national alcohol policies, 2008–2019, by World Bank income group
(n=124 reporting countries in 2008 and 2019)

World Bank income group	Written national alcohol policy expired	No change		New written national alcohol policy enacted
		No written national alcohol policy	Written national alcohol policy	
Low-income	3	9	0	4
Middle-income	9	18	14	22
High-income	8	8	19	10
Total	20	35	33	36

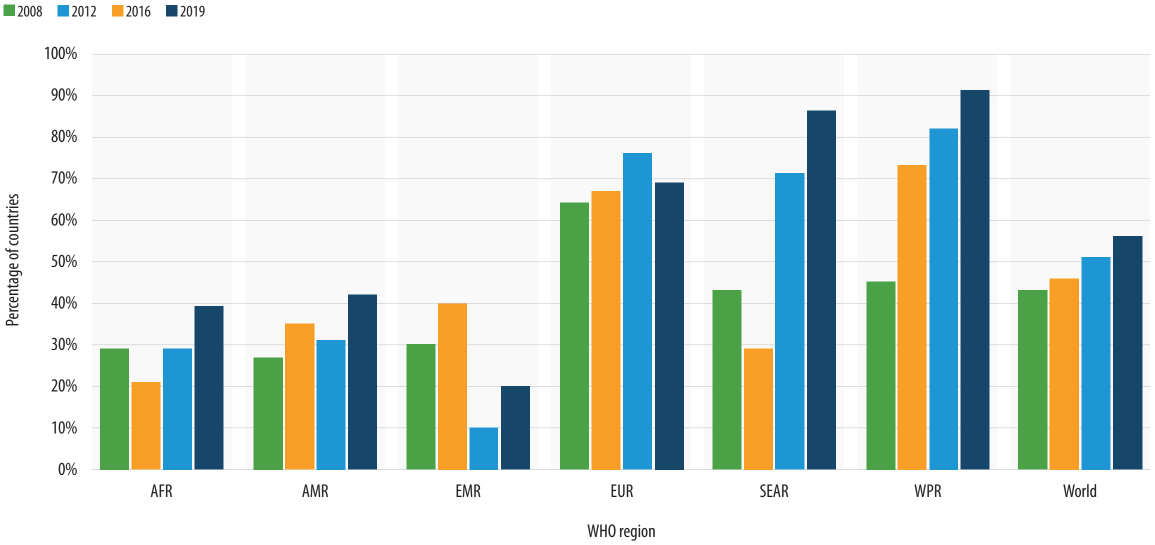
The higher level of policy development among middle-income countries and inertia on this issue in low-income countries has widened the gap in the presence of a written national alcohol policy between low-income countries and the rest of the world. In 2019, just one in four (25%) low-income countries reported a national written policy, but more than half of middle-income (56%) and high-income countries (63%) had such a policy in place (Figure 2.39).

Figure 2.39 Presence of written national alcohol policies in countries by World Bank income groups, 2019
(n=151 reporting countries in 2019)



Regional differences reflect these differences in income: fewer countries in the regions of Africa (39%), the Americas (42%) and the Eastern Mediterranean (20%) reported having written national alcohol policies in 2019, while more than half of the countries in the European (69%), South-East Asia (86%) and Western Pacific (91%) regions indicated they had such a policy in 2019 (Figure 2.40).

Figure 2.40 Written national alcohol policies by year and percentage of countries
(n=124 countries reporting in all four years)



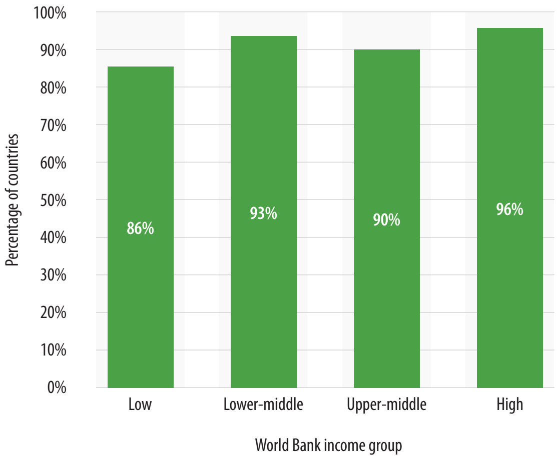
2.3.2 Almost all of the world's population live in countries that implement alcohol excise taxes

Raising prices on alcohol through excise taxes is part of the high-impact interventions in the Global alcohol action plan 2022–2030 and WHO's SAFER technical package; it is one of the most effective and cost-effective strategies for reducing alcohol consumption and related harms (WHO, 2024b). These taxes can also provide governments with financial resources to further address alcohol consumption and related harm.

Beer is the most commonly consumed alcoholic beverage in the world, both by the overall volume and by value (Euromonitor, 2023). There are 11 countries that tax beer but not wine, and only one country taxes wine and spirits but not beer. Consequently, in this report the prevalence of beer taxes worldwide is presented as a "signal" indicator of the degree to which countries are employing alcohol excise taxes.

In 2019, 98% of the population (5.4 billion people) in WHO Member States that did not have a total ban on alcohol and that provided

Figure 2.41 Percentage of countries reporting an excise tax on beer in 2019 by World Bank income group

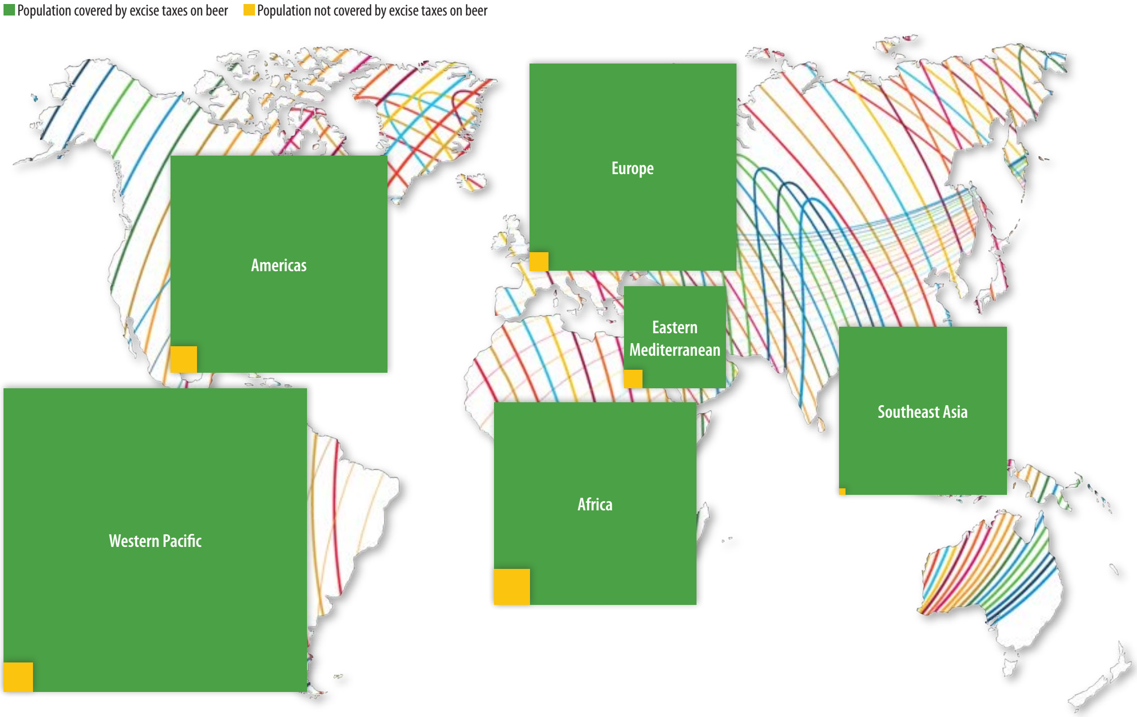


data on their excise taxes lived in a country with an excise tax on beer. Overall, 92% of reporting countries had excise taxes on beer in 2019. The prevalence of these taxes rose with the national income level. In 2019, lower percentages of low-income (86%), lower-middle-income (93%) and upper-middle-income countries (90%) reported excise taxes on beer than high-income countries (96%) (Figure 2.41). This means that a larger share of the population is not covered by excise taxes in low- (16%, 68.2 million), lower-middle- (2%, 28.9 million) and upper-middle-income countries (1%, 25.3 million) than is the case in high-income countries (<0.01%, 131.0 thousand) (Figure 2.42).

Adopting excise taxes on beer in countries that do not have them would be a win-win move for equity, helping these countries to offset harms from alcohol and establishing a new revenue stream.

The impact of taxes on product prices may diminish over time. This happens especially when taxes are linked to the volume of the product or the alcohol content, but the rates of tax do not keep up with inflation and economic growth. To prevent this steady erosion of tax rates and to maintain their impact on real product prices, it is important to adjust specific excise taxes regularly so that they keep pace with inflation.

Figure 2.42 Population coverage for national excise taxes on beer in 2019 by WHO region
(n=132 countries reporting)

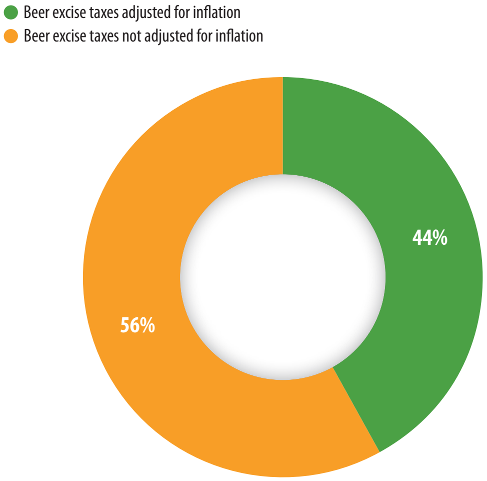


Note: Size of square is proportional to the population size of each region.

Less than half (44%) of countries with a national excise tax on beer in 2019 reported adjusting their tax to keep pace with inflation and the cost of living. Because more populous countries are more likely to have such a policy, 58% of people living in countries with a beer excise tax (3.1 billion people) were covered by policies that adjusted taxes for inflation and the cost of living (Figure 2.43).

There are substantial regional differences in whether countries adjust their beer taxes for inflation. Smaller percentages of people live in countries that adjust their beer excise taxes for inflation in the Americas (16%, 151 million), European (37%, 321 million), South-East Asia (47%, 271 million) and Eastern Mediterranean regions (48%, 100 million) relative to the African (63%, 542 million) and Western Pacific regions (90%, 1.7 billion).

Figure 2.43 Percentage of countries adjusting national excise taxes on beer for inflation in 2019, among countries reporting a national excise tax on beer
(n=123 countries reporting)

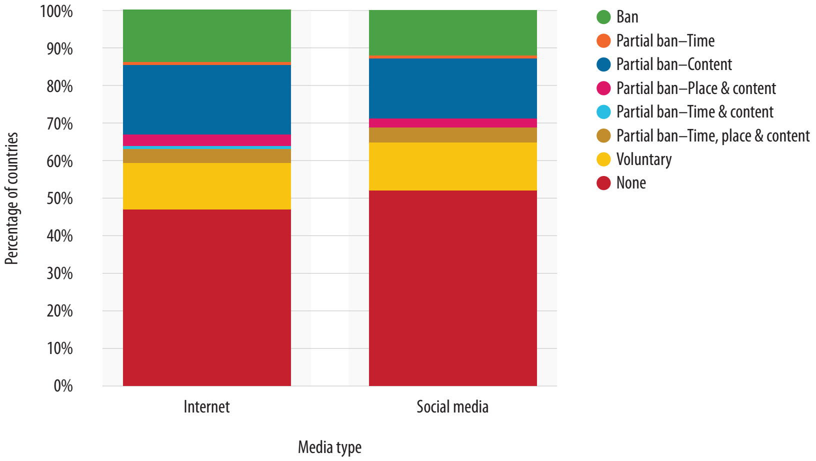


Adjusting beer taxes for inflation is least common in high-income countries, where alcohol consumption is often higher than in less well-resourced nations. Approximately one in four people (26%, 293 million) who lived in a high-income country with a beer excise tax were protected by inflation adjustment; in contrast, 52% (194 million) of people in low-income, 55% (615 million) in lower-middle-income, and 73% (2 billion) in upper-middle-income countries benefitted from policies adjusting beer excise taxes for inflation. One consequence of this is that, although the median price of beer is US$ 0.35 more expensive in high-income countries than in low- and middle-income countries (US$ 1.09 versus US$ 0.74), beer is on average nine times more affordable in these high-income countries (Blecher et al., 2018). Failure to keep excise taxes sufficiently high and in line with inflation in high-income countries is key to beer's greater affordability in those settings.

2.3.3 Alcohol advertising on the Internet and in social media, the most rapidly growing segment of alcohol marketing, remains largely unregulated

In 2019, seven alcohol companies ranked among the world's 100 largest spenders on marketing, spending US$ 18.7 billion worldwide, according to data from *Advertising Age*. In 15 of the 80 countries tracked by *Advertising Age* – mostly low-income countries – they were among the top 10 spenders. The same publication estimates that in the USA, the only country for which this breakdown was available, the share of spending on "unmeasured media" – which traditionally included direct and experiential marketing, coupons, product placement, special events and promotions, but also increasingly reflects spending on online advertising targeted to social media and to mobile users – rose from less than 60% to more than 70% of total spending from 2010 to 2019 (Ad Age, 2020).

Figure 2.44 **Restrictions on advertising for beer by media type and percentage of countries, 2019**
(n=125 for social media and 130 for Internet)



There is increasing scientific consensus that the relationship between young people's exposure to alcohol marketing and their subsequent drinking behaviour is causal (Sargent & Babor, 2020). Beer is the alcoholic beverage whose marketing is least likely to be regulated, so this beverage is a useful indicator of the level at which countries regulate alcohol marketing more generally. Despite the apparent and significant increase in spending on Internet marketing, more than half of countries reported no or voluntary regulations on beer marketing on the Internet (59.2%) and social media (64.8%) in 2019 (Figure 2.44). Internet and social media marketing of alcohol readily crosses national borders, pointing to the need for supplementing country-level measures with a regional or global approach (WHO, 2022).

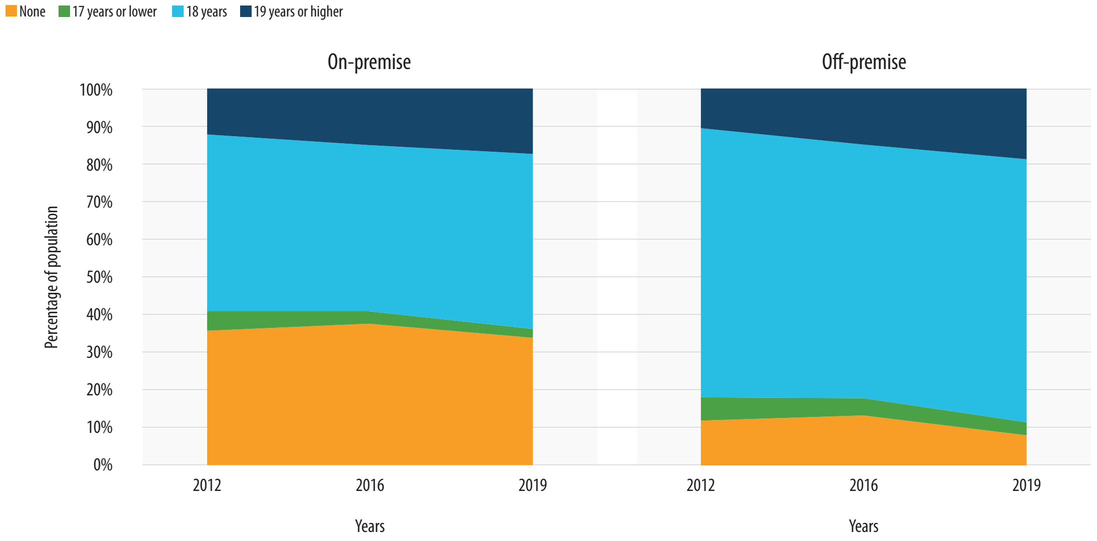
2.3.4 Since 2012, the minimum legal purchase age for beer has tended to rise in national regulations worldwide for both on-premise and off-premise sales

Young people are especially vulnerable to developing harmful drinking patterns that can persist across the lifespan. A large literature establishes both that early initiation into alcohol use increases the likelihood of negative consequences from that use later in life (Hingson & White, 2014), and that minimum legal purchase age laws are effective in reducing consumption and harms among young people (DeJong & Blanchette, 2014).

Countries often set minimum legal purchase ages for beer that are more liberal than for other alcoholic beverages; thus the beer purchase age may be used as a signal indicator for countries' overall purchase ages. Since 2012, the percentage of the world's population living in a country with a beer minimum legal purchase age higher than 18 years has almost doubled (from 312 million to 606 million). At the same time, the population living in countries with no beer minimum legal purchase age at all has declined from 352 million to 257 million. Globally, the most common minimum purchase age for beer is 18 years: in 2019, 2.3 billion people lived in a country with an on-premise and/or off-premise beer minimum legal purchase age of 18 years (Figure 2.45).

Seven countries are known to have either established a minimum purchase age or raised this age from 16 to 18 years for both on-premise and off-premise sales. Two additional countries are known to have established or raised from 16 to 18 years a minimum purchase age for on-premise sales of alcohol, and three countries established or raised the off-premise minimum purchase age from 16 to 18 years. Six countries are known to have raised the minimum purchase age from 18 to 21 years for on-premise and off-premise sales, and one country increased the off-premise minimum purchase age from 18 to 20.

Figure 2.45 Population coverage for minimum age limits for beer sales by year, premise type and percentage of countries
(n=126 countries reporting for on-premise and 124 for off-premise)



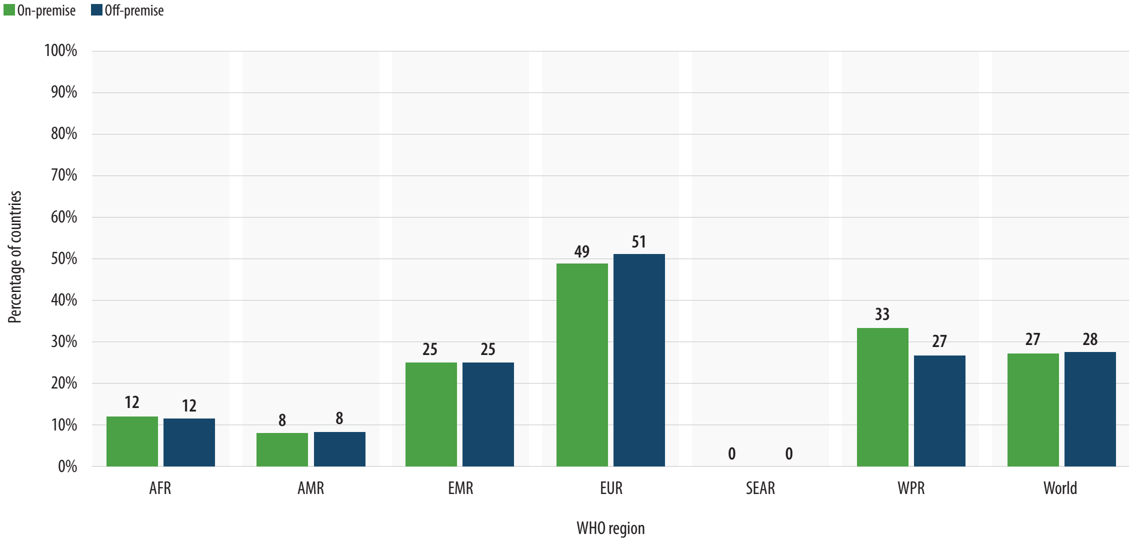
2.3.5 Remote ordering of alcohol is a new phenomenon that is growing rapidly worldwide, but is most common in high-income countries

To mitigate the spread of the COVID-19 pandemic, many countries have relaxed alcohol control policies, including allowing indirect – i.e. remote – purchasing of alcohol for the first time. For instance, a subnational policy scan from OECD countries found that 94% of jurisdictions permitted remote ordering of alcohol as of November 2020 (Colbert et al., 2021). While remote sales may reduce the odds of spreading some types of communicable diseases, these new alcohol delivery policies increase the availability of alcohol and are likely to increase consumption as well, thus undermining alcohol control and countries' ability to make progress towards attaining the SDGs that are influenced by alcohol consumption. Recent data from New Zealand found that people who ordered alcohol online had 75% greater odds of drinking six or more drinks on an average drinking occasion than others who did not (Huckle et al., 2021). Earlier research from the USA found that online delivery undermined minimum purchase age requirements (Williams & Ribisl, 2012).

Because selling and transporting alcohol at a distance requires a robust physical and technological infrastructure, policies permitting and regulating alcohol delivery are most common in high-income countries. More than three times as many high-income countries reported policies related to on-premise (48.8%) and off-premise (48.9%) alcohol delivery than did low-income (12.5% for on- and off-premise delivery) and lower-middle-income countries (16.0% for on-premise and 15.4% for off-premise).

Not surprisingly, policies on remote ordering of alcohol are most common in Europe, where 48.8% and 51.2% of countries reported such policies for on-premise and off-premise remote orders for at least one type of alcoholic beverage. This is substantially higher than the relevant percentages in the Western Pacific Region (33.3% on-premise, 26.7% off-premise), the Eastern Mediterranean Region (25% on-premise and off-premise), the African Region (12% on-premise, 11.5% off-premise), the Region of the Americas (8.0% on-premise, 8.3% off-premise) and the South-East Asian Region (0.0% on-premise and off-premise) (Figure 2.46).

Figure 2.46 Restrictions on delivery of at least one alcoholic beverage category by type of alcohol establishment and percentage of countries, 2019
(n=118 for on-premise and 120 for off-premise establishments)



2.3.6 In 2019, 38% of reporting countries required alcohol product warning labels on pregnancy, under-age drinking, drink-driving and/or cancer; the least common of these is cancer

As of 2019, the content of countries' warning labels on alcoholic beverage containers had not yet caught up with global research on the varied health consequences of harmful use of alcohol, particularly with regard to the role of alcohol in cancer (Rumgay et al., 2021). There is growing consensus about the need to warn about alcohol's link with cancer, given relatively low levels of population awareness of this risk (Scheideler & Klein, 2018). There is also evidence that incorporating cancer warning messages on alcohol bottles and advertisements may boost countries' other alcohol policy efforts because persons who learn about alcohol's carcinogenic effects from a warning label have greater odds of supporting other effective alcohol policies than persons who knew about the risks all along (Weerasinghe et al., 2020). A scoping review of studies published from 2010 to 2021 evaluating either new or enhanced warning labels on alcohol products found that

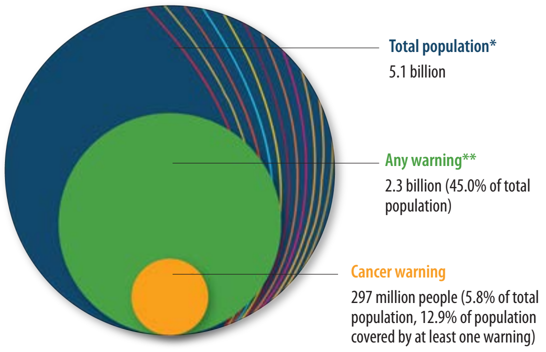
70% of the published research papers examined labels that included at least one cancer-related message, further pointing to research interest and how alcohol-cancer warning labels are running ahead of country policies (Kokole et al., 2021).

In 2019, 40% of responding countries reported requiring at least one alcohol warning label on alcoholic beverage containers (Table 2.16). Compared to countries with cancer warnings, two to three times as many countries required warning labels about pregnancy (22%), drink-driving (30%) or underage drinking (35%). This translates into a significant missed opportunity. Just 6% of the whole world's adult population, and 41% of people living in countries with a required alcohol warning label, are expected to be informed by warning labels about cancer risks associated with alcohol consumption (Figure 2.48). However, implementation of the alcohol warning labels is often uneven and, in reality, less than 6% of people can see a mandated warning message about the role of alcohol in causing cancer.

Table 2.16 National requirements for health warnings on labels of alcoholic beverages and population coverage by topic, 2019
(n=139 reporting countries)

	Number (percent) of countries	Population of reporting countries
Pregnancy warning labels	31 (22.3%)	1.4 billion
Drink-driving warning labels	42 (30.2%)	1.9 billion
Underage drinking warning labels	48 (34.5%)	2.2 billion
Cancer warning labels	12 (8.6%)	297 million
Any warning labels	55 (39.6%)	2.3 billion
Total	139 (100.0%)	5.1 billion

Figure 2.47 Population coverage for national legal requirement for health warning labels and/or messages by topic and WHO region
(n=139 countries responding for all warning label questions)



*Among 139 countries that answered all warning label questions and did not have a total ban on alcohol.
**Includes warnings on topics related to pregnancy, underage drinking, drink-driving and cancer.

2.3.7 Twenty-seven countries, predominantly in the African Region and the Americas, still have blood alcohol concentration limits above 0.05%

Most countries have established national maximum legal blood alcohol concentration limits for driving, and most of these limits are set at 0.03–0.05% (Figure 2.48). There is significant scientific consensus recommending that countries set the maximum permissible blood alcohol concentration (BAC) for operators of motor vehicles at 0.05% (National Academies of Science, Engineering and Medicine, 2018). Some 15% of the world's population lives in a country with a BAC limit that is set higher than 0.05% (Figure 2.49). Since 2016, several countries have reported lowering their BAC limit, and all have lowered it to 0.05% or less. However, several populous countries still retain BAC limits at 0.08%. A recently published evaluation of the one state of the USA that lowered its BAC limit to 0.05% found that the law was associated with a nearly 20% drop in the fatal crash rate, an 18% drop in the fatality rate, and none of the negative economic impacts predicted by opponents of the law (National Academies of Science, Engineering and Medicine, 2018).

Figure 2.48 Percentage of countries with different requirements for legal blood alcohol concentration (BAC) limits in 2012, 2016 and 2019
(n=109 countries reporting in all three years)

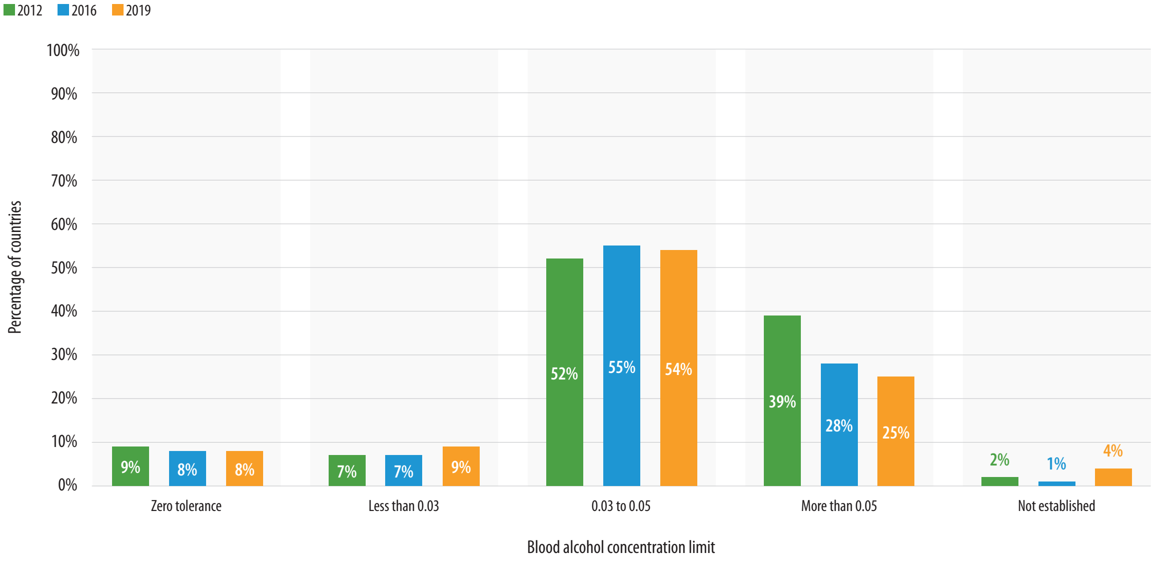
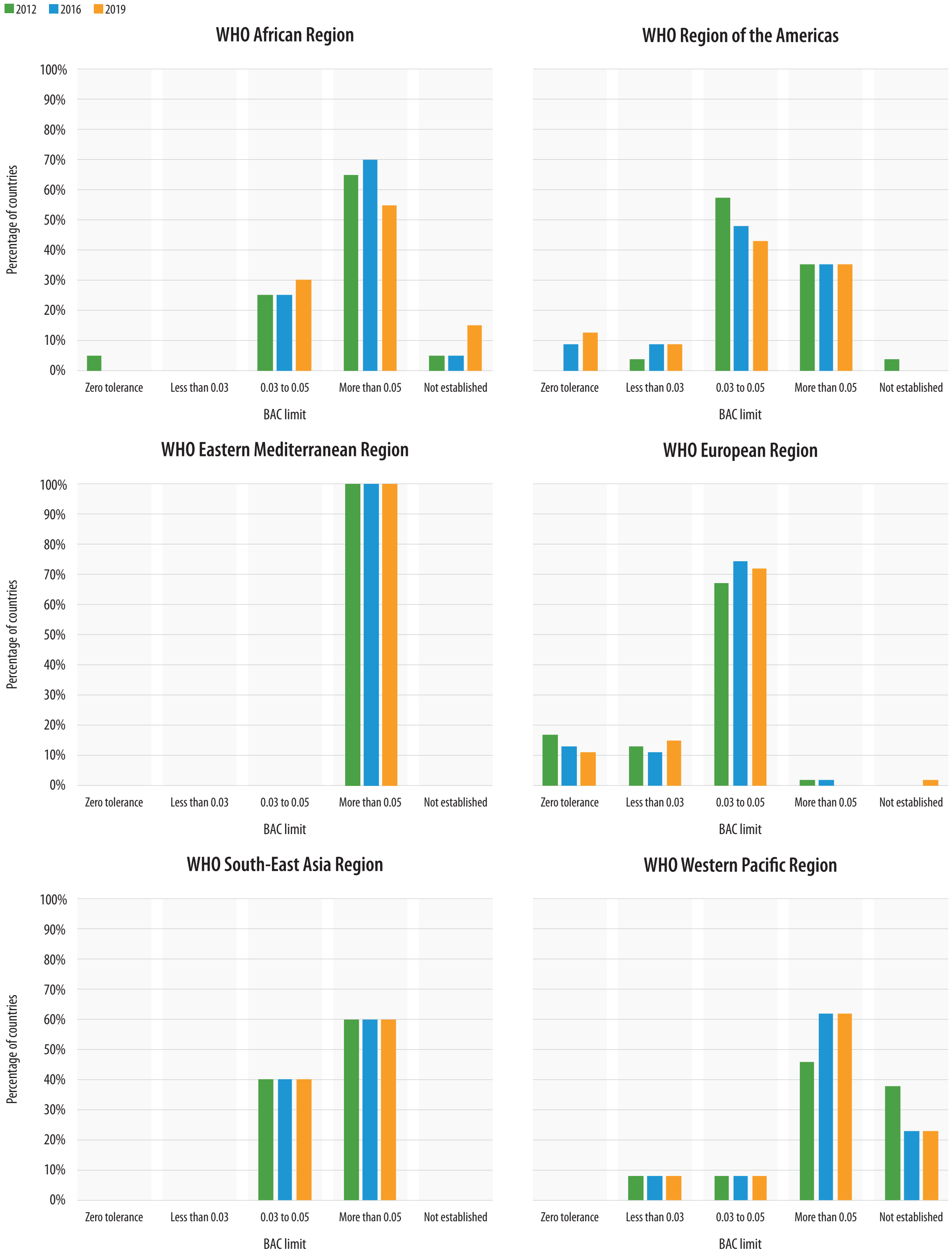


Figure 2.49 **Blood alcohol concentration limits for the general population, 2012–2016–2019**
(n=109 countries reporting in all three years)

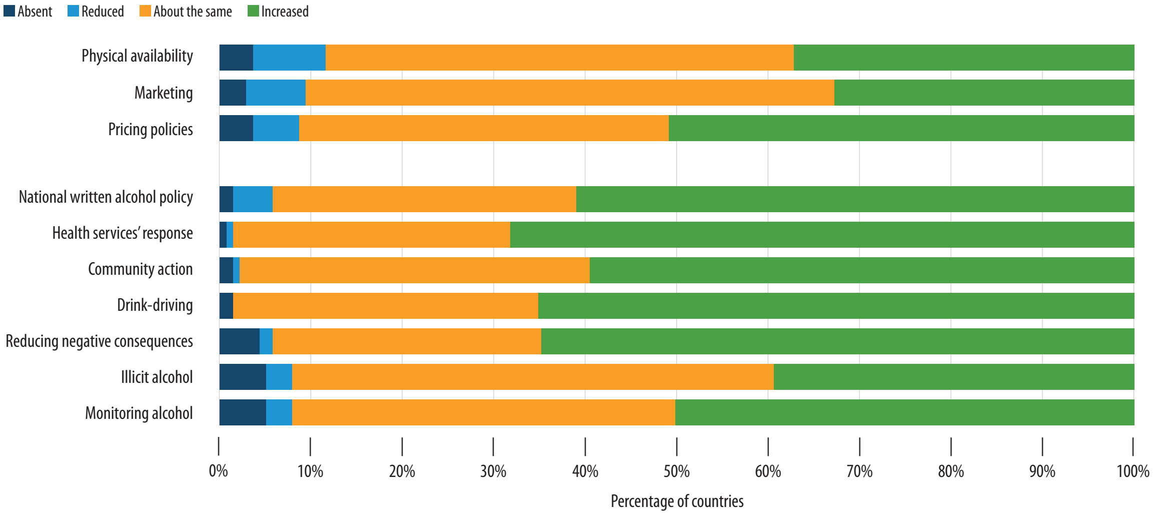


BAC = blood alcohol concentration.
Note: Percentages may not sum to 100% due to rounding.

2.3.8 Most countries reported no progress on the "best buys" in alcohol policy since 2010, signaling the urgent need for action

The "best buys" in alcohol policy – i.e. the policies considered to be most effective and cost-effective – encompass regulations on alcohol pricing, physical availability and marketing. Nearly half (49%) of countries reported no progress, no policies, or reduced scope or intensity in pricing policies since 2010 (Figure 2.50). Two in three countries reported no progress in regulation of physical availability (63.0%) or marketing (67.4%). While a larger percentage of countries reported progress in policy development toward the best buys in 2019 than in 2015, the rate of change is insufficient to meet global targets (Jernigan & Trangenstein, 2020).

Figure 2.50 Overall scope and intensity of alcohol policy development since 2010 by the 10 areas of the Global strategy to reduce the harmful use of alcohol
(n=135 for physical availability and marketing; n=138 for pricing policies and national written alcohol policies; n=134 for illicit/informal alcohol; n=139 for health services' response, reducing the negative consequences of alcohol use, and monitoring and surveillance; n=136 for community action; and n=141 for drink-driving)

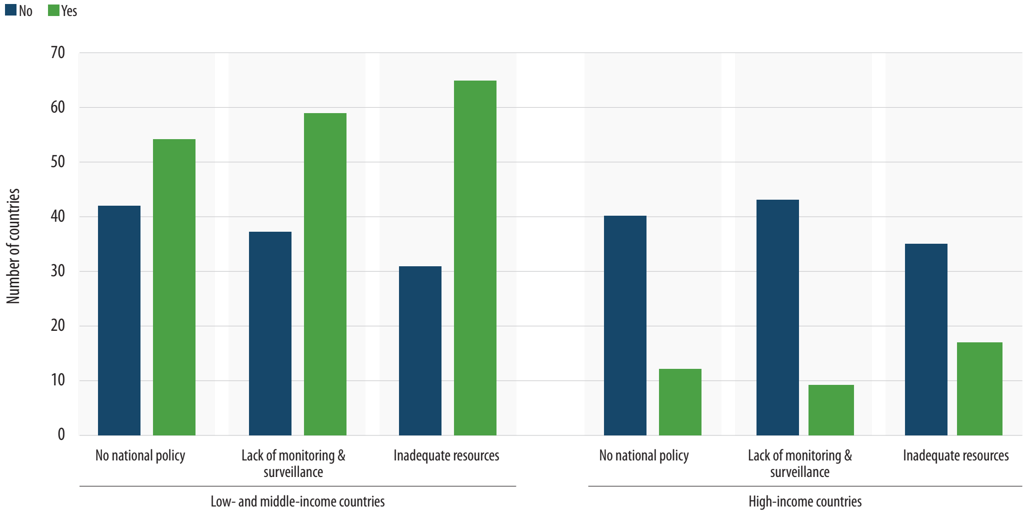


2.3.9 More than wealthier nations, lower-income countries frequently reported insufficient resources devoted to alcohol policy, inability to monitor alcohol consumption and harms, and lack of a national written alcohol policy as the most important barriers and setbacks to alcohol policy development since 2016

Key barriers to alcohol policy development and implementation increased steadily as national incomes declined (Figure 2.51). For instance, 79% of low-income countries pointed to the lack of a national written alcohol policy compared with 51.3% of lower-middle-income countries, 51.3% of upper-middle-income ones and just 22.2% of high-income countries. Similarly, 52.6% of low-income, 28.2% of lower-middle-income, 26.8% of upper-middle-income, and just 9.3% of high-income countries identified lack of experience as a barrier. Among those indicating that data monitoring and surveillance were barriers, the percentages were 73.7% of low-income countries, 59.0% of lower-middle-income countries, 51.2% of upper-middle-income countries, and 16.7% of high-income countries. Additionally, 79.0% of low-income countries reported facing inadequate resources compared with 71.8% of lower-middle-income, 51.2% of upper-middle-income and 31.5% of high-income countries.

This assessment of the key barriers to developing and implementing effective alcohol policies points to the global need for increased resources and technical assistance both for policy development and basic monitoring of alcohol consumption and harm, particularly in low-income and middle-income countries.

Figure 2.51 **Barriers and difficulties in alcohol policy development and implementation since 2016 by World Bank income group category, 2019**
(n=147 countries responding)



2.3.10 Member States continued to report interference from the alcohol industry in alcohol policy development: in 2019, two out of every five people lived in a country that reported such interference over the past three years

Despite the existence of WHO's Framework for Engagement with Non-State Actors (FENSA) and language in various WHO documents proscribing the roles of economic operators in alcohol policy development, significant numbers of countries continue to report interference from the alcohol industry in their efforts to develop effective alcohol policies. Industry interference was most frequently reported in countries of the African Region (62.1%) (Figure 2.52). However, across all income groups, between 42% and 50% of countries pointed to this interference as a barrier to move forward (Figure 2.53).

As the Figure 2.52 shows, industry interference clearly increased as countries reported making progress towards implementing the "best buys". Reported prevalence of industry interference was highest in countries making progress on pricing policies. At the same time, slightly higher percentages of countries reporting no interference from industry made progress on all three best buys compared with countries that indicated industry interference in their efforts. This suggests two important findings: 1) that industry interference will increase as countries move towards the "best buys"; and 2) that progress in implementing the "best buys" is greater when there is no interference from the alcohol industry (Table 2.17).

Figure 2.52 Countries reporting alcohol industry interference by WHO region, 2019

WHO Region	Yes	No	Total
Africa	18 (62.1%)	11 (37.9%)	29 (100.0%)
Americas	14 (46.7%)	16 (53.3%)	30 (100.0%)
Eastern Mediterranean	1 (5.9%)	16 (94.1%)	17 (100.0%)
Europe	23 (47.9%)	25 (52.1%)	48 (100.0%)
South-East Asia	2 (28.6%)	5 (71.4%)	7 (100.0%)
Western Pacific	9 (52.9%)	8 (47.1%)	17 (100.0%)
World	67 (45.3%)	81 (54.7%)	148 (100.0%)

Figure 2.53 Countries reporting alcohol industry interference by World Bank income group, 2019

World Bank income group	Yes	No	Total
Low	8 (42.1%)	11 (57.9%)	19 (100.0%)
Lower-middle	16 (44.4%)	20 (55.6%)	36 (100.0%)
Upper-middle	20 (50.0%)	20 (50.0%)	40 (100.0%)
High	23 (44.2%)	29 (55.8%)	52 (100.0%)
World	67 (45.6%)	80 (54.4%)	147 (100.0%)

Table 2.17 Number of countries reporting alcohol industry interference as a main barrier or setback to alcohol policy development since 2016 by progress on the "best buys"

(n=125 countries responding for availability and advertising and n=126 countries responding for price)

Pricing policies

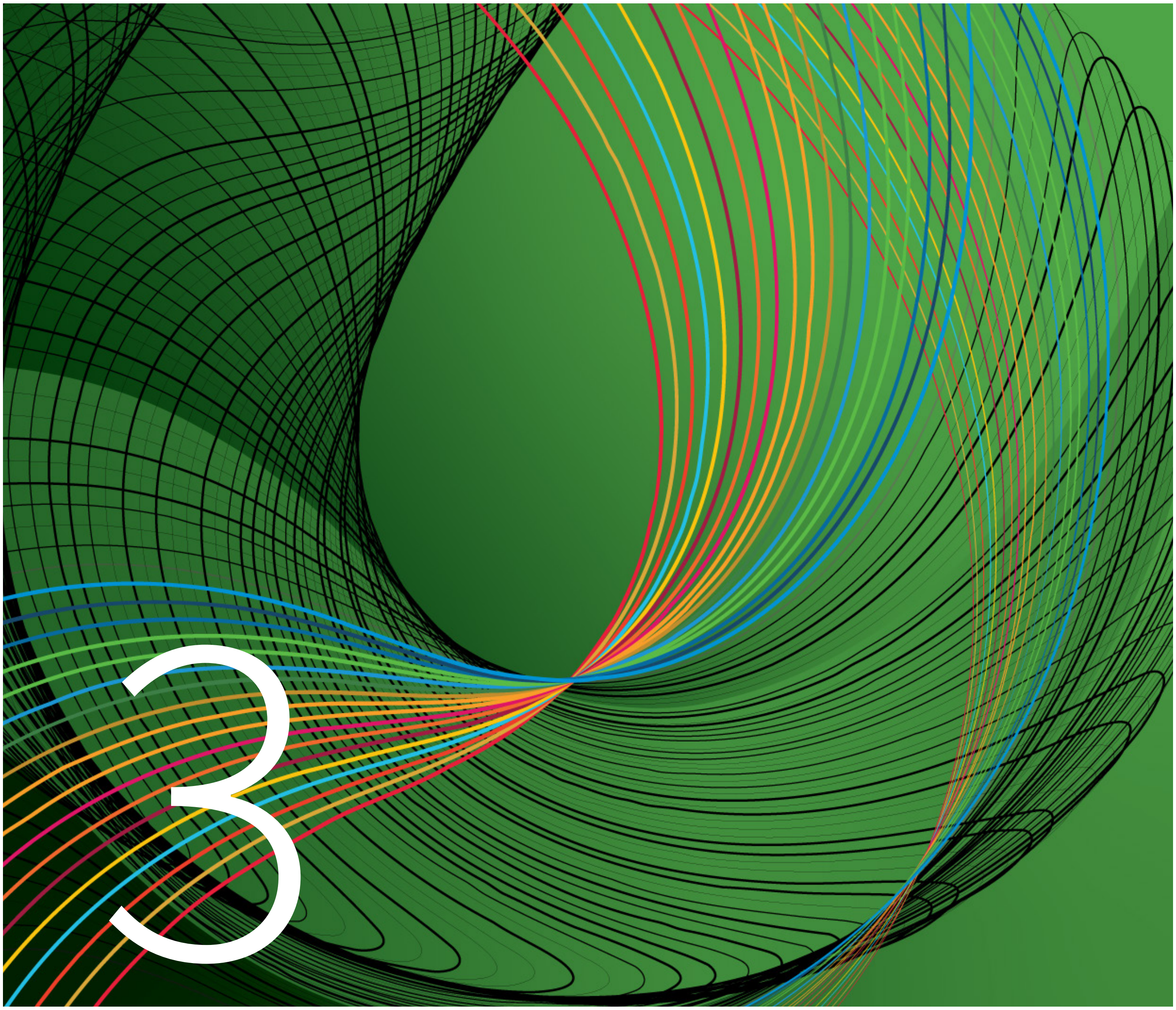
	Reduced	Absent	Same	Increased	
Industry interference	*Less progress*			*More progress*	**Total**
No	0 (0.0%)	2 (3.2%)	29 (46.8%)	31 (50.0%)	62
Yes	7 (10.9%)	3 (4.7%)	24 (37.5%)	30 (46.9%)	64

Alcohol availability

	Reduced	Absent	Same	Increased	
Industry interference	*Less progress*			*More progress*	**Total**
No	2 (3.2%)	1 (1.6%)	33 (52.4%)	27 (42.9%)	63
Yes	9 (14.5%)	4 (6.5%)	29 (46.8%)	20 (32.3%)	62

Alcohol advertising

	Reduced	Absent	Same	Increased	
Industry interference	*Less progress*			*More progress*	**Total**
No	2 (3.2%)	3 (4.8%)	38 (60.3%)	20 (31.8%)	63
Yes	7 (11.3%)	1 (1.6%)	34 (54.8%)	20 (32.3%)	62



3

Strengthening treatment for substance use disorders: towards universal health coverage

CHAPTER 3

Strengthening treatment for substance use disorders: towards universal health coverage

Among the health targets of the United Nations Sustainable Development Goals 2030 (SDG 2030), several targets have direct relevance to the development of treatment systems for alcohol and drug use disorders. Sustainable Development Goals 2030 health target 3.5 calls for "strengthening prevention and treatment of substance abuse" and introduce the indicator of treatment coverage for substance use disorders (SDG 3.5.1) that is formulated as follows: "Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders". In addition, SDG health target 3.8 aims at achieving "universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all" (UN, 2023).

As described in Chapter 1, most psychoactive substances, apart from their ability to cause acute intoxication by altering neurobiological processes, have the potential, when taken repeatedly, to impair control over the use of a substance, leading to the development of substance dependence. Substance use does not necessarily lead to dependence but the greater the frequency and amount of substance used, the higher the risk of developing substance dependence. "Substance dependence" and "harmful pattern of substance use" are the two ICD-11 diagnostic categories that comprise the entity of "substance use disorder".

The development and outcomes of substance use disorders are determined by interaction of biological (including genetic) factors with psychological and social factors, including societal policies that influence people's substance use behaviours. With the development of substance dependence, the levels, patterns and contexts of substance use put individuals at high risk of multiple negative health consequences – ranging from severe intoxication and overdose to substance-induced mental disorders, suicides and other serious health conditions such as liver cirrhosis or substance-related fatal injuries. Further, significant harm comes from the impact of substance use on "others" who may not use psychoactive substances – such as victims of driving accidents, or violence under the influence of psychoactive substances, or children with developmental disorders caused by prenatal exposure to the toxic psychoactive substances (e.g. fetal alcohol spectrum disorders).

Provision of health service responses to substance use disorders is one of the key pillars of societal efforts to reduce the health and social burden of psychoactive substance use.

People living with substance use disorders have the right to access the full range of quality prevention, treatment and rehabilitation services and interventions when and where they need them and without financial hardship, in line with the principles of universal health coverage (UHC) (WHO, 2023a) which has been declared a priority of WHO (Ghebreyesus, 2017). Despite significant prevalence of substance use disorders in populations and their impact on people's health and well-being, the access to effective quality treatment is still very limited worldwide. People with substance use disorders are often deprived of their right to health, education, work opportunities and reintegration into society.

As presented in Chapter 2, around 400 million people globally, or 7% of the world's population aged 15 years and older, live with alcohol use disorders, including 209 million (3.7% of the world's adult population) – with alcohol dependence. Data on the availability of treatment services and interventions and treatment coverage for alcohol use disorders is presented in this chapter. According to the latest estimates from the United Nations Office on Drugs and Crime (UNODC), 39.5 million people lived with drug use disorders in 2021, and it is estimated that not more than 20% of them are receiving treatment (UNODC, 2023). With the global prevalence of smoking amounting to 17% in 2021, only 32 countries are covered by comprehensive cessation services (WHO, 2023b).

There is documented limited access to quality treatment for substance use disorders worldwide and disparity still exists between health coverage for substance use disorders in comparison with that for other health conditions. The monitoring of progress towards the achievement of UHC for people with substance use disorders worldwide when using the SDG 3.5.1 indicator becomes a priority task for WHO and UNODC within the 2030 developmental agenda and its global indicator framework. Surveillance and monitoring of treatment coverage are essential for service planning and resource allocation, enabling service provision to be improved in accordance with the actual needs of the population while ensuring financial protection in line with coverage dimensions of UHC (WHO & World Bank, 2015).

This chapter, based on the data collected in the framework of the WHO Global Survey on Progress with SDG health target 3.5 (see Annex 1), considers the current status of treatment for substance use disorders worldwide in line with the SDG 3.5.1 indicator on treatment coverage. The data presented in this chapter call for strengthening global action in improving the availability, accessibility and affordability of treatment for substance use disorders.

3.1 Treatment of substance use disorders

Within the context of the treatment of disorders due to substance use, the term "treatment" can be defined as "the process that begins when psychoactive substance users come into contact with a health provider or other community service, and may continue through a succession of specific interventions until the highest attainable level of health and well-being is reached" (WHO, 1998). Specifically, treatment goals include: 1) stopping or reducing substance use; 2) improving health, well-being and social functioning; and 3) preventing future harms by decreasing the risk of complications and relapse (WHO, 1998; WHO & UNODC, 2020).

The development of an effective system of treatment services is a crucial part of a country's public health response to the problems associated with substance use disorders. The treatment response to these disorders includes multiple components that are implemented in different settings and often under the responsibility of different parts of the government or nongovernmental organizations (NGOs). The requirements of an effective, evidence-based service system include: 1) sound policies (especially stable financing); 2) appropriate structural features, such as facilities and trained personnel; and 3) services that are effective, accessible, affordable and integrated. The priorities for establishing such a system will depend on the assessment of population needs, as determined by needs-based planning, as well as the support of mutual help organizations and the implementation of effective policies to reduce harmful substance use and associated risks.
Countries differ as to the settings in which treatment for substance use disorders is provided. Settings for the treatment of substance use disorders usually include primary care, mental health care or specially designed and designated services for treatment of these disorders.

Primary care settings can play an important role in conducting screening, brief interventions and referral to treatment, and in delivering pharmacological and psychosocial treatment under certain conditions. These settings can also provide psychoeducation on substance use and its effects on health, and can assist patients in avoiding the stigma associated with seeking specialized treatment for alcohol and drug use disorders. Other non-specialized treatment settings include emergency care, general hospitals, antenatal care, social welfare services, school health services and prison health facilities. The target population includes people who experience adverse effects or have already developed substance use disorders but who are not in contact with specialized health-care settings.

Settings where alcohol and drug services have been incorporated include general hospitals (especially emergency services and trauma centres), sexual health clinics, settings where noncommunicable diseases are managed (e.g. cardiology, cancer, diabetes and dental clinics), infectious disease clinics, HIV/hepatitis/TB services, social services and welfare agencies – including services for people experiencing insecure housing conditions and those in contact with the criminal justice system.

Treatment should be viewed as complementary to population-level prevention interventions aimed at reducing the levels of exposure of populations to dependence-producing psychoactive substances, rather than as the sole solution.

The call to strengthen the treatment of substance use disorders, as articulated in SDG health target 3.5, implies strengthening different treatment modalities and interventions that can be implemented in different settings and with different populations. The SDG global monitoring framework specifies several broad modalities of treatment, as presented in Table 3.1, for facilitation of their global monitoring.

Table 3.1 SDG goal, health target, indicator and corresponding treatment modalities and interventions for substance use disorders

Goal 3 **Ensure healthy lives and promote well-being for all at all ages**
Target 3.5 **Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol**
Indicator 3.5.1 **Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders** **Treatment modalities and interventions:** • Screening, brief interventions and referrals • Pharmacological treatment services and interventions • Psychosocial services and interventions • Community-based outreach and harm-reduction services and interventions • Aftercare, recovery management and rehabilitation

Sources: UN, 2017; WHO & UNODC, 2020.

This section of Chapter 3 presents some highlights of the global situation regarding the treatment of substance use disorders. Section 3.2 of this chapter addresses issues related to the coverage and capacity of treatment services for substance use disorders.

3.1.1 Despite a widespread myth that there is no effective treatment for substance use disorders, effective and cost-effective treatment interventions exist and are recommended by WHO for implementation

Treatment research has addressed with increasing scientific rigour the effectiveness of many of the treatment components that have been developed – including treatment modalities, characteristics of the setting, and measures directed at early identification and harm reduction.

Services for persons with substance use disorders have been found to reduce alcohol and psychoactive drug use, minimize the potential for harm, promote abstinence or reduce substance use, prevent relapse, improve the quality of life and address substance-related problems such as unemployment and marital adjustment.

Although the issue has not been investigated extensively, there is evidence to suggest that treatment and mutual help services are associated with a reduction in population rates of substance-related problems (Mann et al., 1988; Holder & Parker 1992; Smart & Mann, 2000; Bukten et al., 2012). These studies suggest that increased utilization of treatment services can have an impact on population-level problem rates, assuming that the services are available and that a sufficient proportion of the affected population uses them.

There is a good indication that many treatment interventions for substance use disorders are cost-effective. There is strong support for the cost-effectiveness of screening and brief interventions for hazardous/harmful alcohol use (Angus et al., 2014) and potentially for drug use (Dwommoh et al., 2018), although there are studies with less convincing evidence for drug use (Barbosa et al., 2017). There is support for the cost-effectiveness of pharmacological treatment – particularly treatment of opioid dependence with opioid agonists (methadone, buprenorphine, buprenorphine with naloxone) (Dunlop et al., 2017) and opioid antagonist (naltrexone) (Fairley et al., 2021), treatment of alcohol dependence with acamprosate, naltrexone, nalmefene and disulfiram (Avancena et al., 2021; Baser et al., 2011; Laramée et al., 2014). While there are studies indicating cost-effectiveness of psychosocial interventions, the evidence is limited and more research is needed to confirm their cost-effectiveness in various settings (Over et al., 2019; Shearer et al., 2015).

Interventions for substance use and substance use disorders which are recommended by WHO for implementation are listed in Table 3.2.

Table 3.2 Interventions recommended by WHO for hazardous substance use and substance use disorders

Interventions	Disorders due to alcohol use	Disorders due to drug use
Screening, brief interventions and referrals to treatment	Brief interventions for hazardous and harmful drinking, also using AUDIT screening instrument	Brief interventions for hazardous and harmful substance use, also using ASSIST screening instrument
Pharmacological treatment services and interventions	Management of alcohol withdrawal with benzodiazepines. Thiamine for prevention and treatment of Wernicke's encephalopathy. Relapse prevention in people with alcohol dependence with acamprosate, baclofen, naltrexone and disulfiram	Management of withdrawal from cannabis, cocaine or amphetamines in a supportive environment and with symptomatic medication. Management of withdrawal from benzodiazepines using a gradual tapering. Management of withdrawal from opioids using opioid agonists or alpha-2 adrenergic agonists. Psychosocially assisted treatment of opioid dependence with opioid agonists (methadone, buprenorphine) and antagonists (naltrexone). Management of opioid overdose with naloxone
Psychosocial services and interventions	Cognitive behavioural therapy, motivational interviewing and motivational enhancement therapy, contingency management, community reinforcement approaches, family-oriented treatment approach, mutual-help groups	

Sources: WHO, 2001; 2009; 2012; 2014; 2023c.

3.1.2 About 20% of reporting countries do not have any screening and brief intervention programmes for substance use, and 20% of the countries which have them report their availability only in some leading national institutions

The hallmark of the public health approach in health service systems for substance use disorders has been the development of screening techniques that allow the identification of substance use patterns and substance use disorders, and that also provide brief interventions and referrals to match the severity of the problem. A number of screening tools have been developed to identify persons at risk of alcohol and drug problems or those with alcohol and drug use disorders. One of the most widely used screening tests is the Alcohol Use Disorders Identification Test (AUDIT), a 10-item screening instrument developed by WHO for use in primary care settings (Saunders et al., 1993; WHO, 2001). A related instrument that was developed for the identification of both alcohol and drug use disorders is the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) (WHO, 2010c).

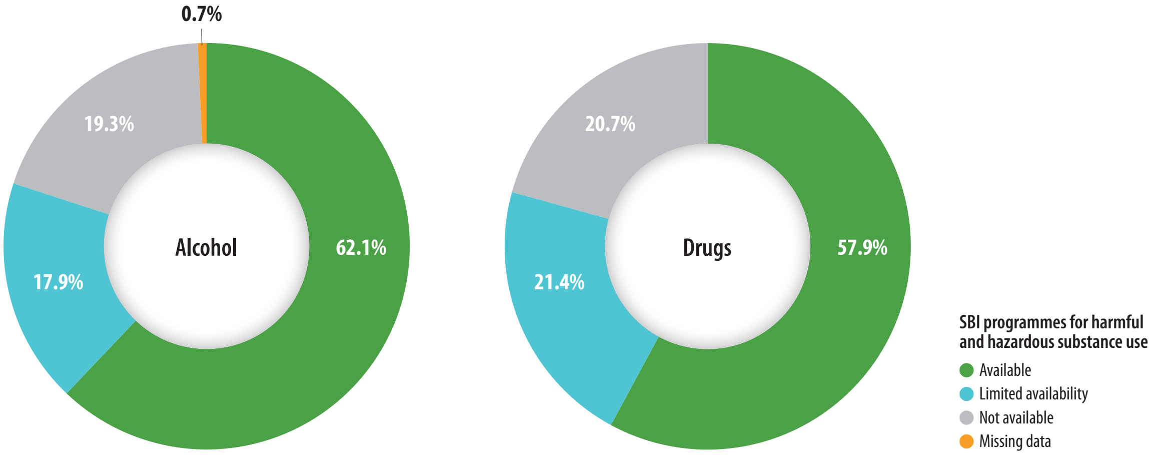
Hazardous and harmful use of alcohol and other psychoactive substances typically precedes the development of alcohol and drug dependence and the harmful pattern of use of these substances results in medical and psychological problems even in the absence of dependence. With the increased interest in clinical preventive services, programmes have been developed to facilitate the management of hazardous and harmful substance use in primary health care and other settings. After an initial screening to identify risk levels, the patient is referred for either a brief intervention or more intensive specialized treatment. Brief interventions usually consist of 1–3 sessions of counselling and education. The aim for patients who are not likely to have alcohol or drug dependence is to motivate them to reduce or stop their substance use to reduce the risk of related harm. For patients with more serious cases (such as those with substance dependence), the aim is to facilitate referral to appropriate treatment.

During the past three decades, numerous randomized controlled trials have been conducted to evaluate the efficacy of brief interventions in primary care and other health-care settings. The cumulative evidence from systematic reviews and meta-analyses (Kaner et al., 2018; mhGAP, 2019, 2023) shows that clinically significant reductions in drinking and alcohol-related problems can follow from brief interventions.

Brief interventions to address the harmful use of psychoactive drugs have been subject to less research, and that research is less supportive (Saitz, 2021). One of the largest studies of brief interventions in drug users (Humeniuk et al., 2012) was conducted by WHO in primary health-care settings in four countries (Australia, Brazil, India and the USA). Compared with control participants, those receiving the brief intervention reported significantly reduced drug involvement three months later.

Despite evidence of effectiveness, access to Screening, Brief Intervention and Referral to Treatment (SBIRT) remains limited. According to the data generated by the WHO Global Survey on Progress with SDG health target 3.5, about one fifth of reporting countries do not have any screening and brief intervention programmes at all, and in one fifth of countries that have them they are available only in some leading national institutions (Figure 3.1).

Figure 3.1 Availability of screening and brief intervention (SBI) programmes for alcohol and drug use, 2019 (n=145 countries reporting)



3.1.3 Although most countries (about 80%) provide specialized services for people with substance use disorders, in about 10% of these countries specialized services are available only for the treatment of acute conditions, and about 5% of countries have no specialized services for treatment of alcohol or drug use disorders

Specialized treatment services for substance use disorders are typically separated according to whether the primary substance behind the treatment demand is alcohol or a psychoactive drug. In many countries, the persons requiring intervention tend to use multiple substances; thus in many programmes the treatment addresses both alcohol and other substances. Nevertheless, there are important differences between services for alcohol and illicit drugs. Differences depend in part on the demographic characteristics of the populations affected, the legal issues involved, the pharmacological properties of the primary substances, the risks of overdose and the types of treatment provided.

Specialized treatment for persons with substance use disorders is conducted in three main types of settings: inpatient, outpatient and long-term rehabilitation programmes. The settings for short-term inpatient treatment typically offer 24-hour care with the capacity to manage complicated states of acute intoxication, severe alcohol and drug withdrawal syndromes or other substance-induced acute clinical conditions such as substance-induced psychoses. Treatment can be provided in specialized hospitals, psychiatric hospitals or specialized units or programmes of general hospitals.

Specialized outpatient treatment settings vary considerably in terms of their components and intensity. Typically, they are community-based and staffed by mental health and social care professionals who are specialized in the treatment of substance use disorders. In some countries former patients in recovery who have special training in counselling or recovery management support delivery of treatment in outpatient services. The main treatment interventions include psychosocial interventions, pharmacological interventions, the management of mental and physical health comorbidities, and social care and support (WHO, 2020). High-intensity outpatient programmes – such as intensive day treatment – involve therapeutic interactions and group meetings with patients who do not reside at the residential facility.

Treatments for both substance use disorders and other psychiatric disorders are effective in reducing substance use and in improving behavioural, familial and psychosocial outcomes. The evidence further suggests that these outcomes might be improved when treatment modalities are offered in combination within an integrated treatment plan that simultaneously addresses substance use and psychiatric problems (Morisano et al., 2014). According to WHO's Global Survey on Progress with SDG health target 3.5, while most countries (about 80%) provide specialized services for people with substance use disorders, in about 10% of reporting countries these services are available only for the treatment of acute conditions, and in about 5% of countries specialized services for alcohol and drug use disorders are not available (Figure 3.2). As presented in Figure 3.3, almost half of countries do not have special treatment and care programmes and services for people with SUD and comorbid conditions and disabilities.

Figure 3.2 Availability of specialized services for treatment of substance use disorders, 2019
(n=145 countries reporting)

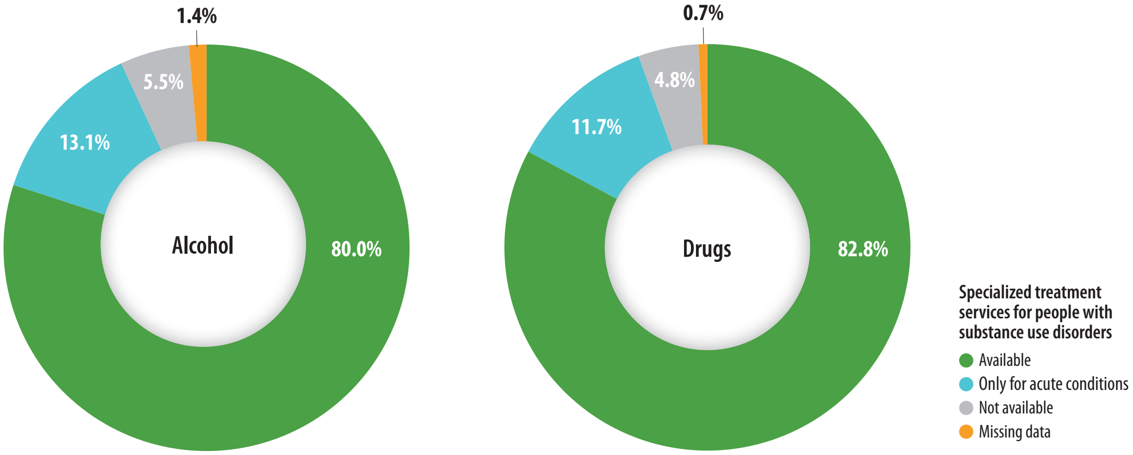
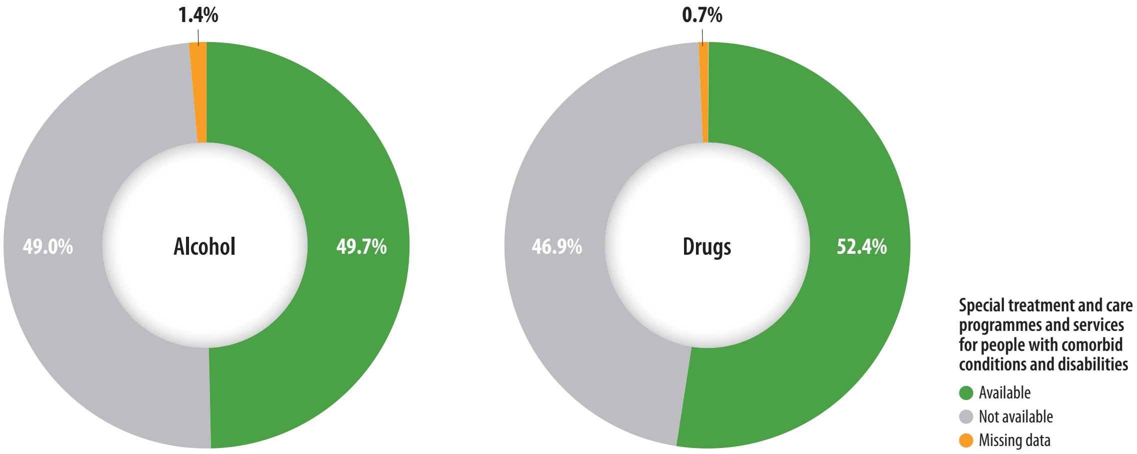


Figure 3.3 Availability of special treatment and care programmes and services for people with SUD and comorbid conditions and disabilities, 2019
(n=145 countries reporting)



3.1.4 In fewer than half of reporting countries, treatment and care programmes and services are available for populations with special treatment and care needs, and more than half of countries do not have provisions for treatment as alternatives to criminal sanctions

Persons with special treatment and care needs now constitute a significant proportion of those seeking services for substance use disorders. Programmes focusing on the needs of women and young persons have proliferated in some countries, making treatment more accessible, acceptable and appropriate for special populations that have traditionally been discouraged from seeking treatment because of stigma and neglect. Treatment for children and adolescents with substance use disorders is particularly important for the management of co-occurring psychiatric disorders, and services for women are needed to address their specific needs, such as during pregnancy or child care, as well as to prevent the effects of prenatal alcohol and drug exposure and to manage comorbid mental health conditions (Morisano, Babor & Robaina, 2014; WHO & UNODC, 2020; UNODC, 2023).

Substance use disorders are health conditions and, as a rule, people should be offered voluntary treatment in the health and social care systems. Treatment of substance use disorders often involves a degree of direct or indirect coercion from family, friends, employers and the criminal justice system that precedes entry to treatment (Room et al., 2020).

Effective and ethical treatment options should be offered, when appropriate, to people with drug use disorders who are in contact with the criminal justice system as a partial or complete alternative to conviction or punishment (WHO & UNODC, 2020). Opinion is divided on the effectiveness of official actions mandating persons with substance use disorders to enter treatment and to maintain abstinence after treatment, in part because of ethical concerns (Vuong et al., 2019). Evaluations of short-term effects, particularly from court-mandated programmes and drug courts, show reduced alcohol and drug use, but quasi-military detention and rehabilitation camps that seek to address problematic alcohol and drug use have little supporting evidence and have been criticized for human rights abuses (e.g. Hall et al., 2012).

The data generated in the framework of WHO's Global Survey on Progress with SDG health target 3.5 indicate (Figure 3.4) that special treatment and care programmes and services for children and adolescents are not available in the majority of reporting countries, and specialized services for women are even less available. Only 31.7% of countries report having services for pregnant women receiving treatment for alcohol use disorders, and 35.2% of countries have such services for drug use disorders.

As shown in Figure 3.5, a majority (64% for alcohol and 57% for drugs) of countries do not have legislative or administrative provisions for offering voluntary treatment as an alternative to, or in addition to, criminal sanctions for people with substance use disorders who come into contact with the criminal justice system, and about 10% of responding countries have a system of drug courts.

Figure 3.4 Availability of specialized services for treatment of substance use disorders for women, children and adolescents, 2019

(n=145 countries reporting)

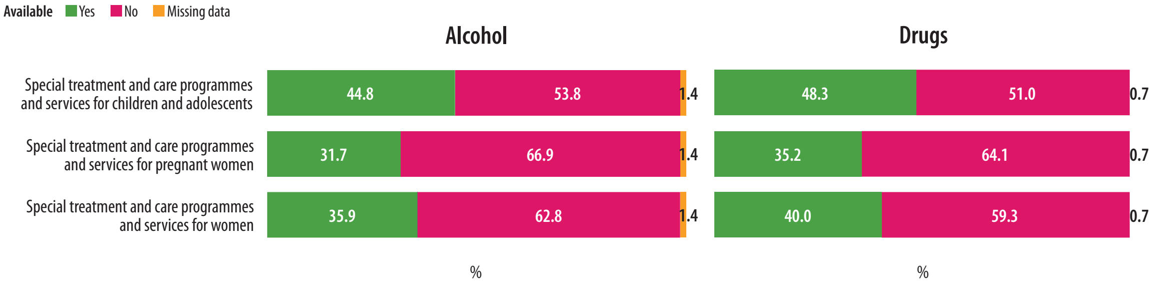
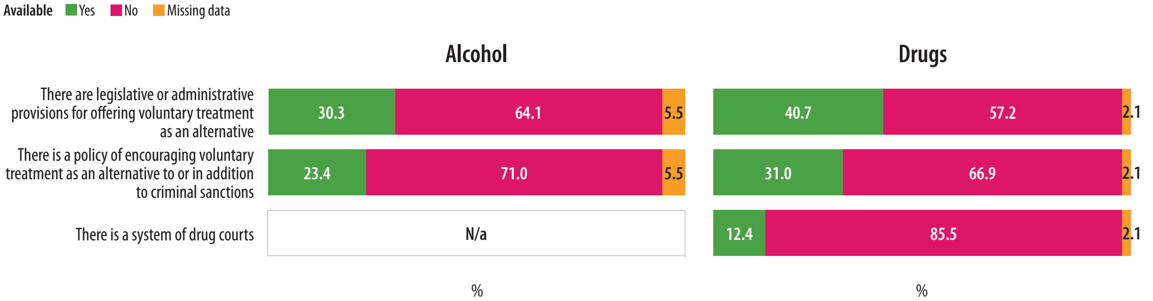


Figure 3.5 Availability of provisions for a voluntary treatment as an alternative to or in addition to criminal sanctions, 2019

(n=145 countries reporting)

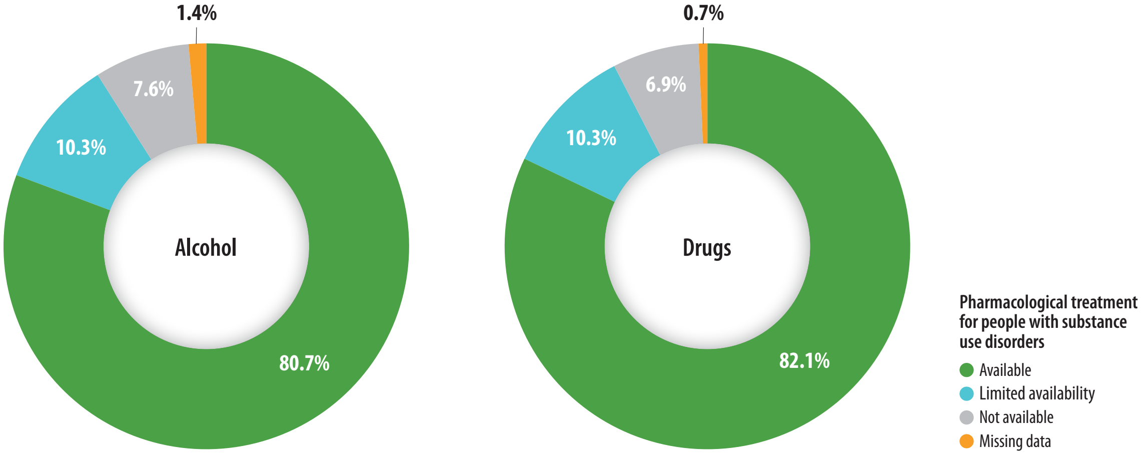


3.1.5 Pharmacological treatment for people with substance use disorders is available in most reporting countries (81% for alcohol and 82% for drugs). In 10% of reporting countries it is limited to isolated initiatives in leading national institutions or research programmes, and in 7% of reporting countries pharmacological treatment for people with substance use disorders is not available

Pharmacological treatment of substance use disorders includes treatment with such medications as disulfiram, naltrexone, acamprosate, baclofen for alcohol dependence, and opioid receptors agonist and antagonist maintenance treatment for opioid dependence, as well as naloxone for the management of opioid overdose (WHO, 2023f).

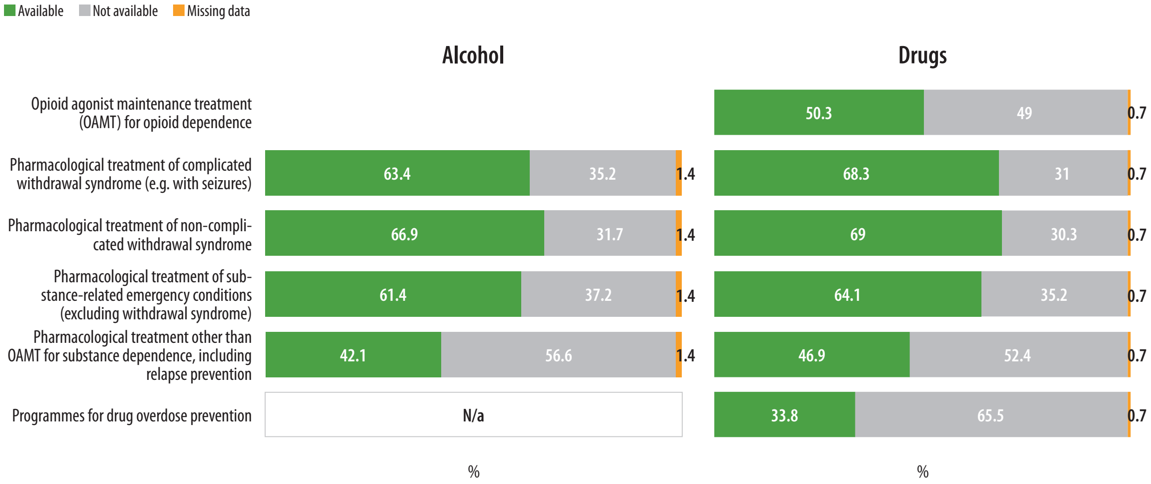
According to data generated in the context of the WHO Global Survey on Progress with SDG health target 3.5, in the majority of reporting countries (about 81% for alcohol and 82% for drugs) pharmacological treatment for people with substance use disorders is available, although in about 10% of countries it is limited to some isolated initiatives in leading national institutions or research programmes, and in about 7% of reporting countries pharmacological treatment for people with substance use disorders is not provided in any area of the country (Figure 3.6).

Figure 3.6 Availability of pharmacological treatment for alcohol and drug use disorders, 2019
(n=145 countries reporting)



In about two thirds of countries, pharmacological treatment is available for the management of withdrawal from both alcohol and drugs (both complicated and non-complicated) and management of other emergency conditions. While opioid agonist maintenance treatment (OAMT) is available for people with opioid dependence in about half of responding countries, other non-OAMT treatment for relapse prevention is less available, with about 42% countries reporting it for alcohol use disorders and 47% for drug use disorders. About two thirds of responding countries do not have programmes for drug overdose prevention (Figure 3.7).

Figure 3.7 Availability of different pharmacological treatment options for the majority of patients entering treatment for substance use disorders, 2019
(n=145 countries reporting)



3.1.6 Availability of medicines recommended by WHO for treatment of substance use disorders varies significantly among reporting countries

The availability of medicines for treatment of substance use disorders is indispensable for the provision of pharmacological treatment services and interventions. An increasing number of medicines and their pharmaceutical formulations are being studied for the treatment of disorders due to substance use; many have a strong record of effectiveness and cost-effectiveness and are considered to be essential for satisfying the priority health-care needs of a population. Accordingly, the section on "Medicines for disorders due to psychoactive substance use" in the WHO Model List of Essential Medicines has been updated recently and now includes separate subsections for medicines used in the treatment of alcohol, nicotine and opioid use disorders (WHO, 2023d; WHO, 2023d; Table 3.3).

Table 3.3 Medicines for disorders due to psychoactive substance use in the 23rd WHO Model List of Essential Medicines (WHO, 2023d)

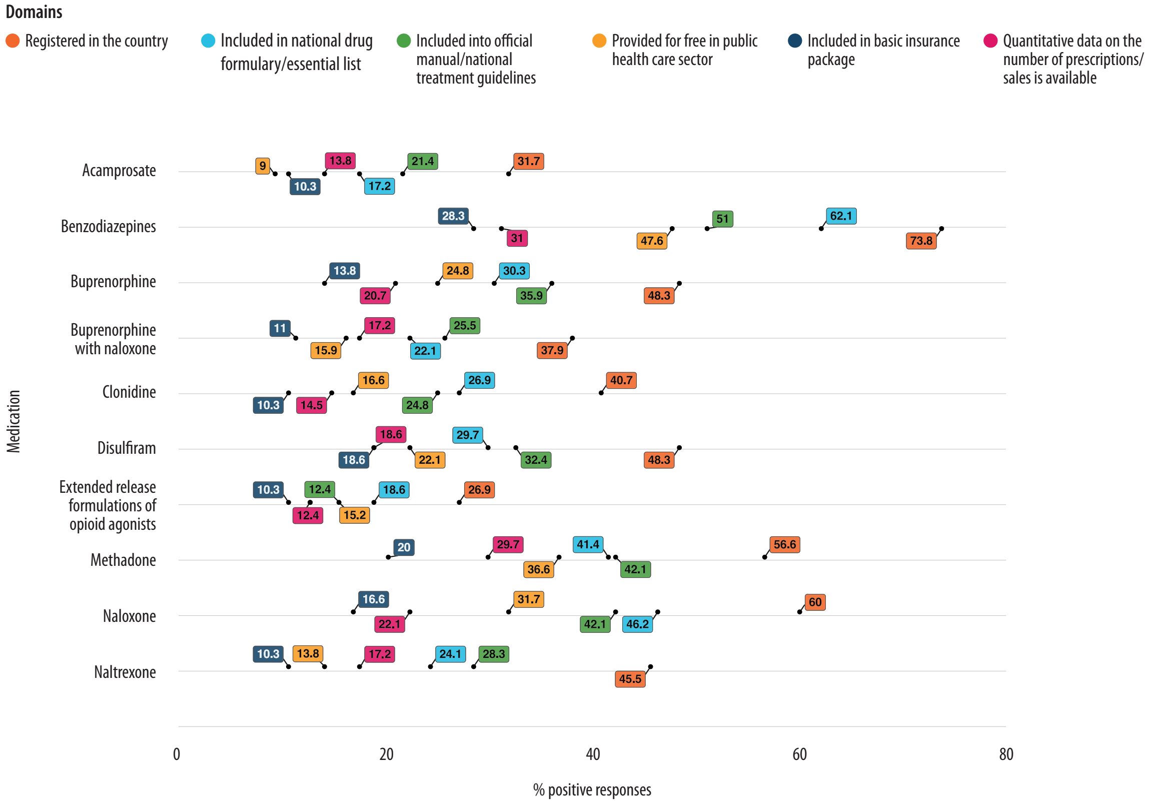
24.5.1 Medicines for alcohol use disorders	
Acamprosate calcium	**Tablet:** 333 mg
Naltrexone	**Injection suspension (extended-release):** 380 mg in vial **Tablet:** 50 mg
24.5.2 Medicines for nicotine use disorders	
Bupropion	**Tablet (sustained-release):** 150 mg (hydrochloride)
Nicotine replacement therapy (NRT)	**Chewing gum:** 2 mg; 4 mg (as polacrilex) **Lozenge:** 2 mg; 4 mg **Oral spray:** 1 mg per actuation **Transdermal patch:** 5 mg to 30 mg/16 hours; 7 mg to 21 mg/24 hours
Varenicline	**Tablet:** 0.5 mg, 1 mg
24.5.3 Medicines for opioid use disorders *Complementary list (specialized diagnostic or monitoring facilities, and/or specialist medical care, and/or specialist training are needed)*	
Methadone* Therapeutic alternatives: • Buprenorphine	**Concentrate for oral liquid:** 5 mg/mL; 10 mg/mL (hydrochloride) **Oral liquid:** 5 mg/5 mL; 10 mg/5 mL (hydrochloride)

*The medicines should be used only within an established support programme.

Decades ago, the international community made a commitment to ensure the availability of medicines under international control that were considered indispensable for medical and scientific purposes – such as morphine, methadone, buprenorphine or other opioids (International Narcotics Control Board, 2016). Addressing the discrepancy in the availability of narcotic drugs and psychotropic substances for pharmacological treatment and research is one of the obligations of governments in complying with the international drug control conventions. The impediments most often cited by countries are concerns about drug dependence, insufficient training for health professionals, limited financial resources, problems in sourcing, cultural attitudes and fear of diversion (International Narcotics Control Board, 2016). Insufficient or inadequate access to psychotropic substances is particularly pronounced in low- and middle-income countries.

According to the data generated by the WHO Global Survey on Progress with SDG health target 3.5, the availability of medicines recommended by WHO for treatment of substance use disorders varies significantly among reporting countries and across medications. Benzodiazepines are registered in more than 70% of countries, naloxone is registered in 60%, methadone in about 57%, and all other medications are registered in less than half of countries. Some medications (e.g. acamprosate and extended-release formulations of opioid agonists) are not even registered in about two thirds of countries. There is a big difference between different aspects of availability: even if medications are registered in countries, they are less likely to be included in national drug formulary/essential medicines lists, official manuals or treatment guidelines, and much less likely to be provided for free in public health sector or to be covered by basic insurance packages. Across all medications, the quantitative data on numbers of prescriptions or sales are very rarely available, varying from 31% for benzodiazepines to 12% for extended-release formulations (Figure 3.8).

Figure 3.8 Access to medicines for treatment of disorders due to substance use, 2019
(n=145 countries reporting)



3.1.7 In about 15% of reporting countries, programmes of psychosocial services and interventions for substance use disorders are provided only in a few leading national institutions or research programmes, and therefore are not available to most people in need

Psychosocial services and interventions represent an important component of treatment responses to substance use disorders and, as indicated in the introduction to this section of the report, are explicitly included in the description of the SDG 3.5.1 indicator.

A variety of psychosocial interventions are used in the treatment of people with alcohol use disorders, with the objectives being to reduce alcohol use, achieve abstinence from alcohol and prevent relapse. Cognitive-behavioural therapy (CBT), group therapy, family therapy and motivational enhancement are among the approaches with the greatest amount of supporting evidence for treatment of alcohol use disorders (WHO, 2019).

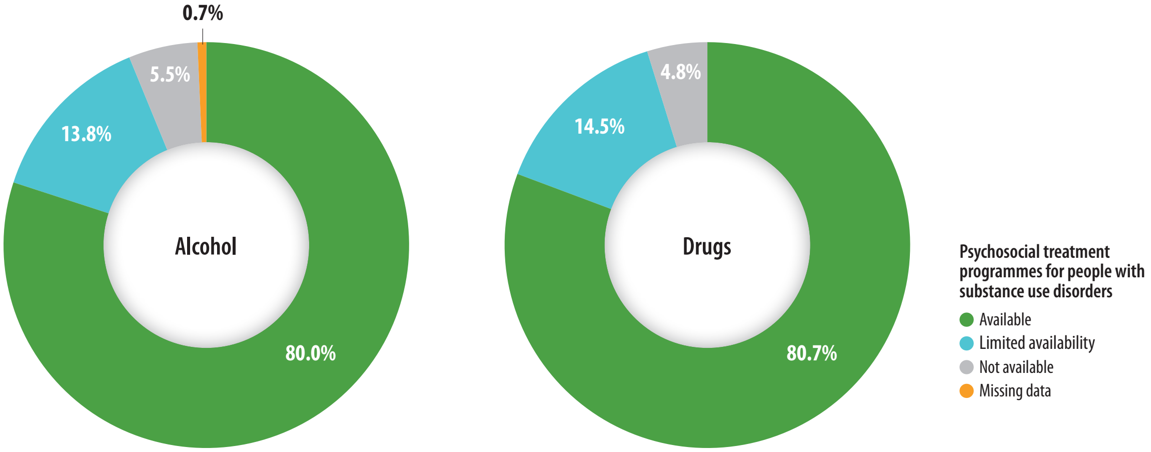
Currently there is no effective and cost-effective pharmacological treatment for preventing relapse of cannabis, cocaine or amphetamine-type stimulants use disorders. Psychosocial interventions are the mainstream therapeutic approaches.

CBT, contingency management (CM), motivational enhancement therapy (MET)/motivational interviewing, psychoeducation, family/couples therapy, and the 12-step approach are interventions showing effectiveness across a range of substance use disorders and treatment settings and are recommended by WHO (WHO, 2023e).

However, the availability and accessibility of psychosocial interventions for people with substance use disorders is uneven and are often out of reach for many people in need.

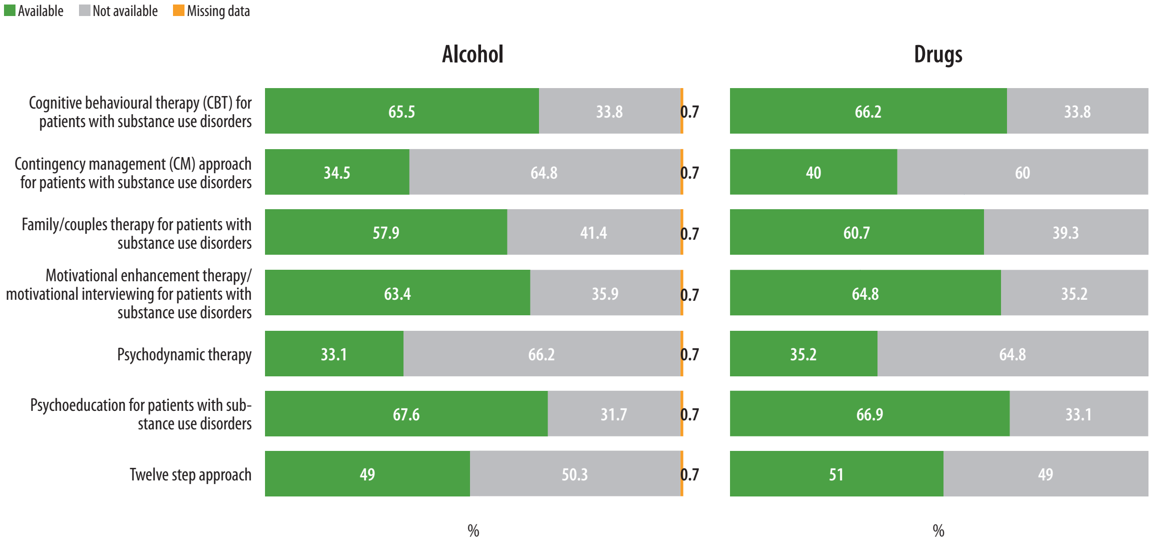
According to data generated by the WHO Global Survey on Progress with SDG health target 3.5, as presented in Figure 3.9, practically all (95%) the reporting countries do have psychosocial programmes for people with alcohol and drug use disorders. However, in about 15% of reporting countries these programmes are linked only to a very few leading national institutions or research programmes, which are usually located in cities, have limited capacity and are often inaccessible for people living in rural areas (Figure 3.9).

Figure 3.9 **Availability of programmes of psychosocial services and interventions, 2019**
(n=145 countries reporting)



Among the most widely available psychosocial treatment interventions for people with substance use disorders are psychoeducation, CBT and MET followed by family/couples approaches, 12-step programmes, CM and psychodynamic therapy (Figure 3.10).

Figure 3.10 Proportion of reporting countries (in %) where the following psychosocial interventions are available for the majority of patients entering treatment for substance use disorders
(n=145 countries reporting)



3.1.8 Almost half of responding countries do not have mutual help/peer support groups for people living with alcohol and drug use disorders

Mutual help organizations – such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA) and others – represent a critical resource in countries with mature systems and in those with limited resources. Not only do these approaches provide continued support in the community but they do so at minimal cost to the health system. These interventions are based on the idea that a group of individuals with a common problem can understand and support each other's recovery. A variety of mutual help models have been developed throughout the world (Humphreys, 2004), many of them seemingly capable of managing some of the most difficult cases of drug and alcohol dependence. According to the website of Alcoholics Anonymous,[1] in 2023 there were more than 2 million members affiliated with 123 000 AA groups in 180 countries. AA is by far the most widely utilized source of help for persons with drinking problems. Several large-scale, well-designed studies (Kelly et al., 2020; Humphreys, 2014; Walsh et al., 1991) suggest that AA can have an incremental effect when combined with formal treatment, and AA attendance alone may be better than no intervention.

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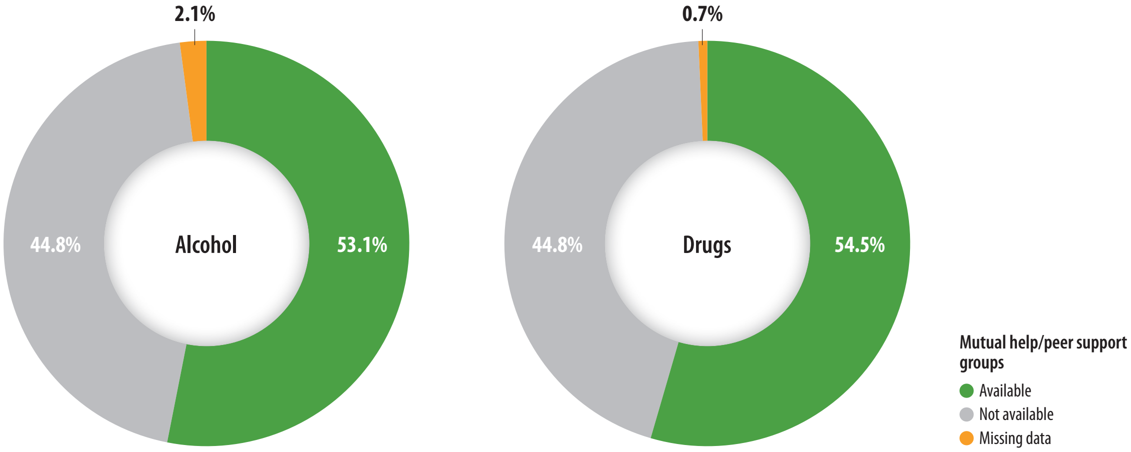
[1] https://www.aa.org/aa-around-the-world

Established in the USA, NA is based on the AA 12-step model as applied to persons who experience problems with a wide variety of psychoactive substances. According to its website,[2] NA has chapters in over 100 countries, having successfully spread from the USA to societies with other languages and religious traditions (e.g. Egypt, Spain, Russian Federation, Thailand). NA has at least 250 000 members around the world with the fastest growth in developing societies such as Brazil and the Islamic Republic of Iran.

In addition to AA and NA, which originated in the USA, mutual help organizations have been developed in a number of other countries, such as Danshukai in Japan, Kreuzbund in Germany, Croix d'Or and Vie Libre in France, Abstainers Clubs in Poland, Family Clubs in Italy, Links in the Scandinavian countries, Pui Hong self-help organizations in Hong Kong, Oxford House in North America and Australia (Babor, 2021). Attendance of 12-step mutual-help groups other than AA, including those for people living with gambling disorder, has been shown to be linked with symptoms of less severity and a better quality of life (Leurent et al., 2023).

Although mutual help/peer support groups are regarded as useful resources for people with substance use disorders, almost half of responding countries reported that they do not have such support groups for alcohol and drug use disorders (see Figure 3.11).

Figure 3.11 Availability of mutual-help group programmes in countries, 2019
(n=145 countries reporting)



3.1.9 While rehabilitation programmes are available in more than half of reporting countries, the majority of countries do not have special housing services or employment assistance programmes for people with substance use disorders

WHO defines rehabilitation as "a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment" (WHO, 2019a). In the context of treatment and care for people with substance use disorders the term "rehabilitation" usually defines the process by which a person with a substance use disorder achieves an optimal state of health, psychological functioning and social well-being (WHO, 1994).

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[2] https://na.org/

This process often requires long-term coordinated engagement with different organizations and services. In the context of treatment settings and modalities, the term "rehabilitation programme" is often used to define inpatient, and sometimes outpatient, recovery-oriented treatment programmes of varied duration (from several weeks to many months).

The availability in countries of rehabilitation programmes and their different components for people with alcohol and drug use disorders is presented in Figure 3.12 and Figure 3.13. "Limited availability" means that there are some initiatives (such as single programmes) connected to leading national institutions, or research programmes with limited accessibility to people in need, or programmes that are located outside health and social care systems.

Although inpatient and outpatient rehabilitation programmes for both alcohol and drug use disorders are available in more than 60% of countries, some specific services are in place less often. For instance, special housing services are available in less than 20% of countries; free legal consultations/support and welfare assistance/benefits for people with substance use disorders are available in slightly more than 20% of countries; employment assistance for people with alcohol use disorders and drug use disorders are available in 34% and 37% of countries, respectively; and educational programmes for people with substance use disorders are available in slightly more than half of countries (Figure 3.13).

Figure 3.12 Proportion (in %) of countries where rehabilitation programmes for people with substance use disorders are available, 2019
(n=145 countries reporting)

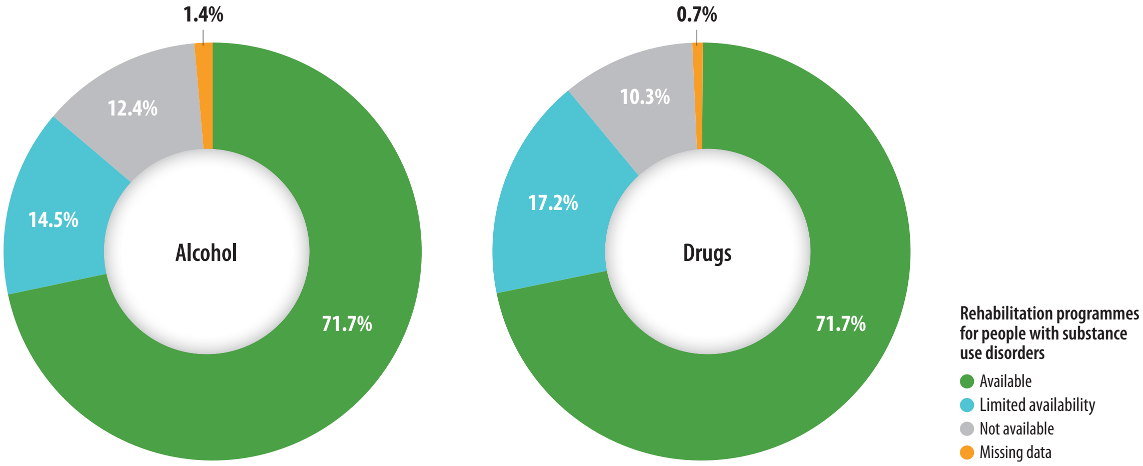
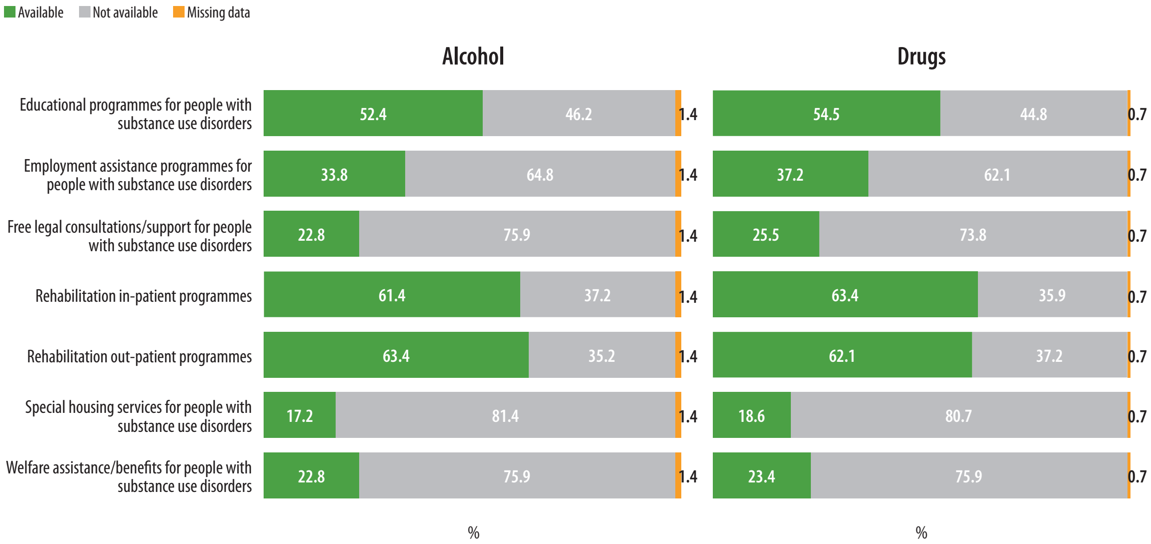


Figure 3.13 Proportion (in %) of countries where different modalities of rehabilitation programmes are available for people with substance use disorders, 2019
(n=145 countries reporting)

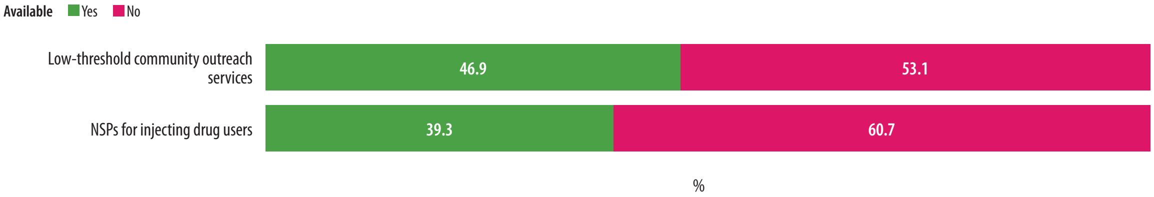


3.1.10 More than half of countries do not report the availability of outreach services for people who use drugs, and about two thirds of countries do not report availability of needle and syringe programmes for people who inject drugs

Harm reduction services directly target the specific risks of substance use (e.g. infection or transmission of HIV or hepatitis B or C viruses, or drug overdose deaths) without assuming that cessation of drug use needs to be a main therapeutic goal (WHO, 1994). These interventions might often be provided outside the formal health sector as non-structured services and may include a variety of approaches, such as low-threshold community outreach and needle and syringe programmes (NSPs).

While these interventions play an important role in reducing the harms associated with substance use, their availability remains limited in many countries. More than half of countries do not report the availability of outreach services for people who use drugs and about two thirds of countries do not report needle and syringe programmes for people who inject drugs (Figure 3.14).

Figure 3.14 Proportion of reporting countries where low-threshold outreach programmes and needle and syringe programmes are available, 2019
(n=145 countries reporting)



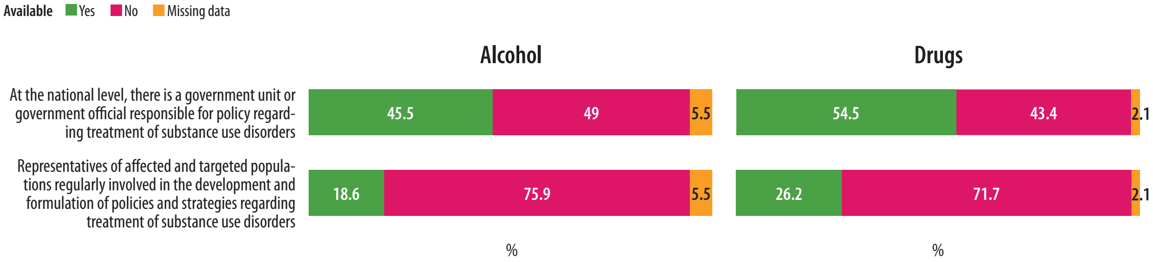
3.1.11 Less than half of countries report the availability of national action plans and policies on the development of treatment of substance use disorders, and less than a quarter of countries report the involvement of representatives of affected and targeted populations in the development and formulation of treatment policies and plans

With the expansion of alcohol consumption in the emerging economies of Africa, Asia and Latin America and the proliferation of traditional and new psychoactive substances in the world's increasing youth population, there is a growing need for treatment services as well as more integrated and effective treatment service systems. An effective, evidence-based service system includes: sound policies (especially for stable financing); regulatory controls (especially for ethical issues); appropriate structural features, such as treatment programme facilities and trained personnel; and services that are effective, accessible, affordable and integrated (Babor et al., 2017). National action plans and policies are critical features for the development of a treatment system based on public health principles.

Demographic factors such as changes in the age structure and cultural changes and differences are highly relevant to service planning and design. Changing trends result in a critical need for some services, whereas other services become obsolete and fall into disuse. There is a need for regular needs assessment exercises to adjust the service system to current needs, and the involvement of service users in the development and formulation of treatment policies and plans is a prerequisite for appropriate responses to treatment needs in populations. The sociocultural context of disadvantaged communities, guest workers and indigenous populations should be a major priority in the planning and development of service systems (Babor, 2021).

According to data generated by the WHO Global Survey on Progress with SDG health target 3.5, 46.2% of reporting countries have no national action plan for developing services for alcohol use disorders, and 38.6% have no plan for drug use disorders. Although policies for developing services for these disorders are more prevalent (55.2% and 64.1% for alcohol and drugs, respectively) than national plans, the need for national planning continues to be high, even in countries where problems with substance use disorders have not become critical.

Figure 3.15 Availability of a government unit or an official responsible for policy or plan development for the treatment of substance use disorders and the involvement of representatives of affected or target populations, 2019
(n=145 countries reporting)

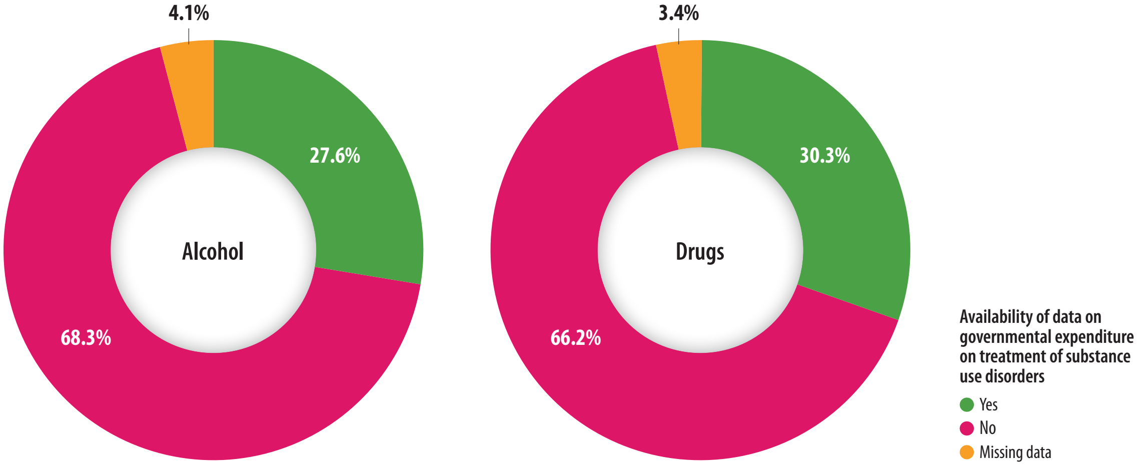


As shown in Figure 3.15, about 50% of responding countries do not have a governmental unit or a governmental official responsible for treatment policies for alcohol use disorders and 43% of responding countries – for drug use disorders. In the majority of responding countries (>70%) representatives of affected and targeted populations are not involved in the development and formulation of policies and strategies regarding treatment of substance use disorders.

3.1.12 Most countries do not have a specific budget line or data on governmental expenditures for treatment of substance use disorders, and in the majority of countries people with substance use disorders are not eligible to receive governmental non-monetary or monetary support such as disability pensions, housing, educational assistance or subsidies for food

Nation states and subnational governments have used a variety of financing mechanisms to support treatment services for substance use disorders. Financing mechanisms can affect the degree of centralized management of treatment services and their incorporation into other human service areas such as social welfare, mental health, general medicine and criminal justice. A major development in research, theory and policy has been developed around the concept of "health taxes" (Lauer et al., 2022) on alcohol, tobacco and other unhealthy commodities, which not only can be effective fiscal measures for reducing substance-related harm but also could be an important tool for financing health services for substance use disorders as well as universal health care. According to a survey conducted by WHO (2010), fewer than half of responding countries have a specific budget line for these services. According to the data generated in the framework of the WHO Global Survey on Progress with Attainment of SDG health target 3.5, less than a third of responding countries have data on governmental expenditures for treatment of alcohol and drug use disorders (Figure 3.16) and, among those who have the information, the majority (75%) indicated that the proportion of the national health budget allocated to treatment of substance use disorders is less than 1% of the budget.

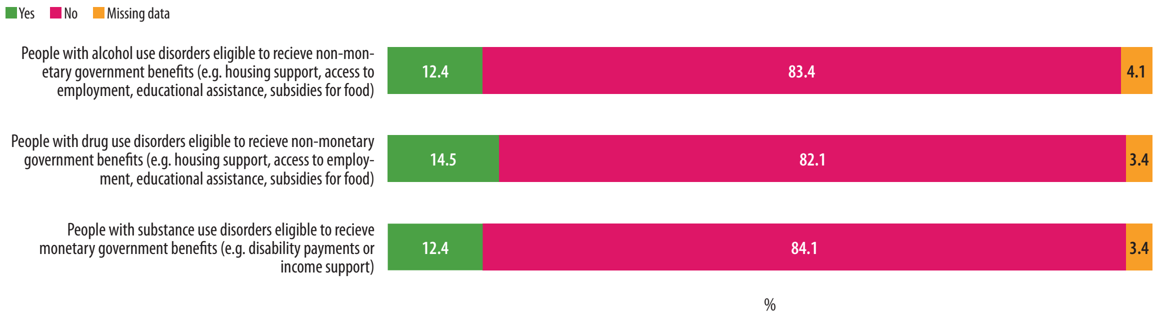
Figure 3.16 Proportion of reporting countries with available data on governmental expenditure for treatment of alcohol and drug use disorders, 2019
(n=145 countries reporting)



There is little research and no scientific consensus about which funding mechanisms support long-term development of treatment systems for disorders due to substance use. Financing mechanisms vary but most countries use tax revenues, user fees and private insurance to pay for alcohol and drug treatment services. Some countries have a history of financing treatment services from tax revenues collected from the sale of alcohol, particularly where there is a state monopoly on production and sale. In countries that do not have publicly funded health systems, funding for the treatment of substance use disorders depends on grant-based programme support as well as fee-for-service models.

Like other mental health conditions, substance use disorders may lead to significant functional impairment and disability. Whereas in many countries people with severe mental disorders are eligible for different types of financial and non-monetary governmental support, including disability pensions, the situation with substance use disorders is different and reflects long-standing disparity with other mental health and physical health conditions. In more than 80% of responding countries, people with substance use disorders are not eligible to receive governmental non-monetary or monetary support such as disability pensions, housing, educational assistance or subsidies for food (Figure 3.17).

Figure 3.17 Proportion of responding countries where people with substance use disorders are eligible for receiving governmental support
(n=145 countries reporting)



3.1.13 About 60% of countries (54% for alcohol and 60% for drugs) have national guidelines/standards of treatment and care for public specialized treatment services, and only about half of reporting countries (46% for alcohol and 53% for drugs) indicate the availability of legal regulations to protect the confidentiality of people in treatment

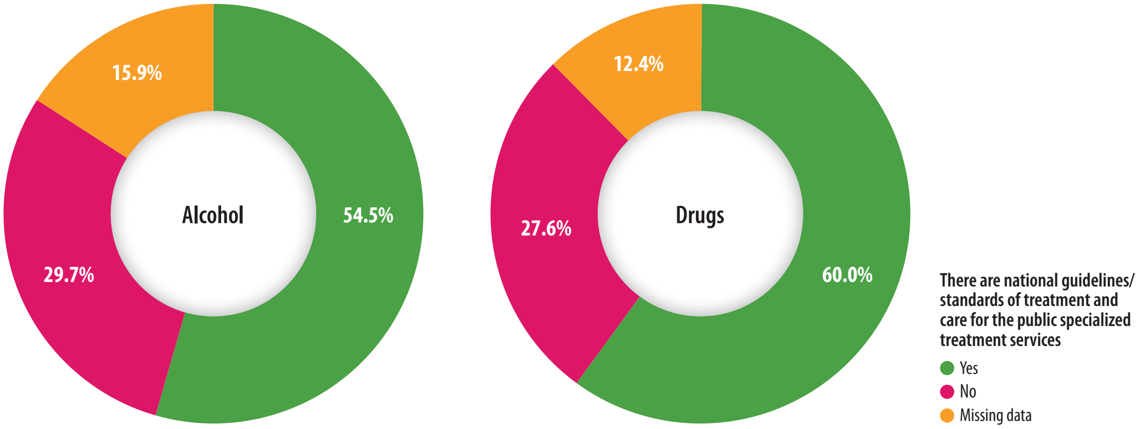
A range of treatment options and modalities is available for the management of disorders due to substance use. There is a steady growth of specialized services for people with substance use disorders in both public and private health and social care services. Treatment research has addressed with increasing scientific rigour the effectiveness of many of the treatment components that have been developed, including treatment modalities, setting of characteristics, and measures directed at early identification, treatment and harm reduction. The principles of service provision and the evidence generated on feasibility, effectiveness and cost-effectiveness of different prevention and treatment modalities and interventions form the basis for guidelines and standards for the prevention and treatment of health conditions due to substance use. National guidelines and standards aim to provide the necessary guidance for health professionals on ethical and evidence-based treatment and standards of care, and are instrumental for service development and quality assurance.

With the increasing use of computerized records and the flow of electronic health information between health-care providers, confidentiality protection is a crucial component of service planning. People using services for mental health and substance use disorders have the right to the protection of their health-related information on an equal basis with other persons. Legislation and national standards are needed to protect sensitive patient health information from being disclosed without the patient's consent or knowledge. These regulations cover all information about patients receiving diagnosis, treatment or referral for treatment (WHO, 2023). Legislative measures, supported by appropriate staff training and service rules and regulations, should ensure and protect the confidentiality of patient data (WHO & UNODC, 2020).

As shown in Figure 3.18, only about 60% (54% for alcohol; 60% for drugs) of reporting countries have national guidelines or standards on the treatment and care of substance use disorders for public specialized treatment services.

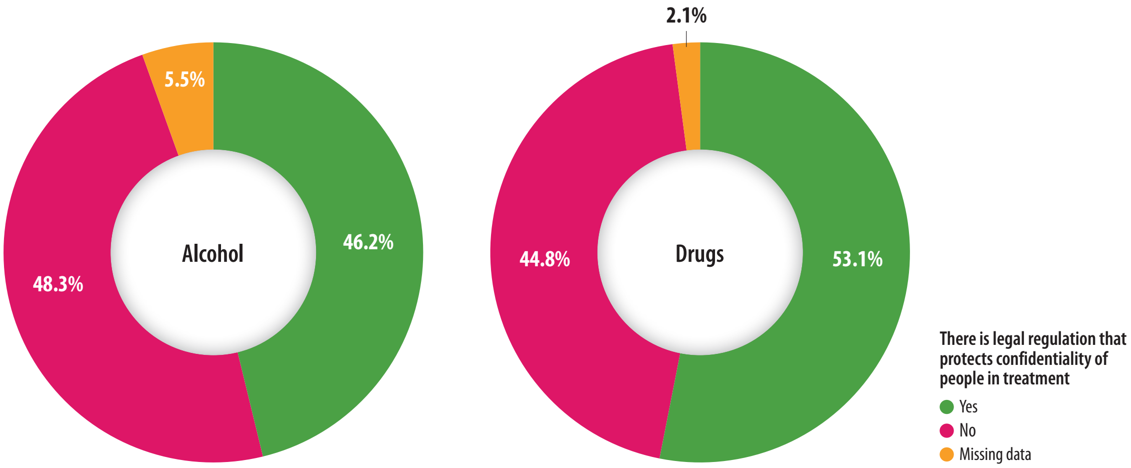
Figure 3.18 Availability of national guidelines/standards of treatment and care for the public specialized treatment services

(n=145 countries reporting)



As shown in Figure 3.19, legal regulation that protects the confidentiality of people in treatment for substance use disorders is absent in 48.3% of the countries for alcohol and 44.8% for drugs.

Figure 3.19 Availability of legal regulations that protect the confidentiality of people in treatment for substance use disorders, 2019
(n=145 countries reporting)



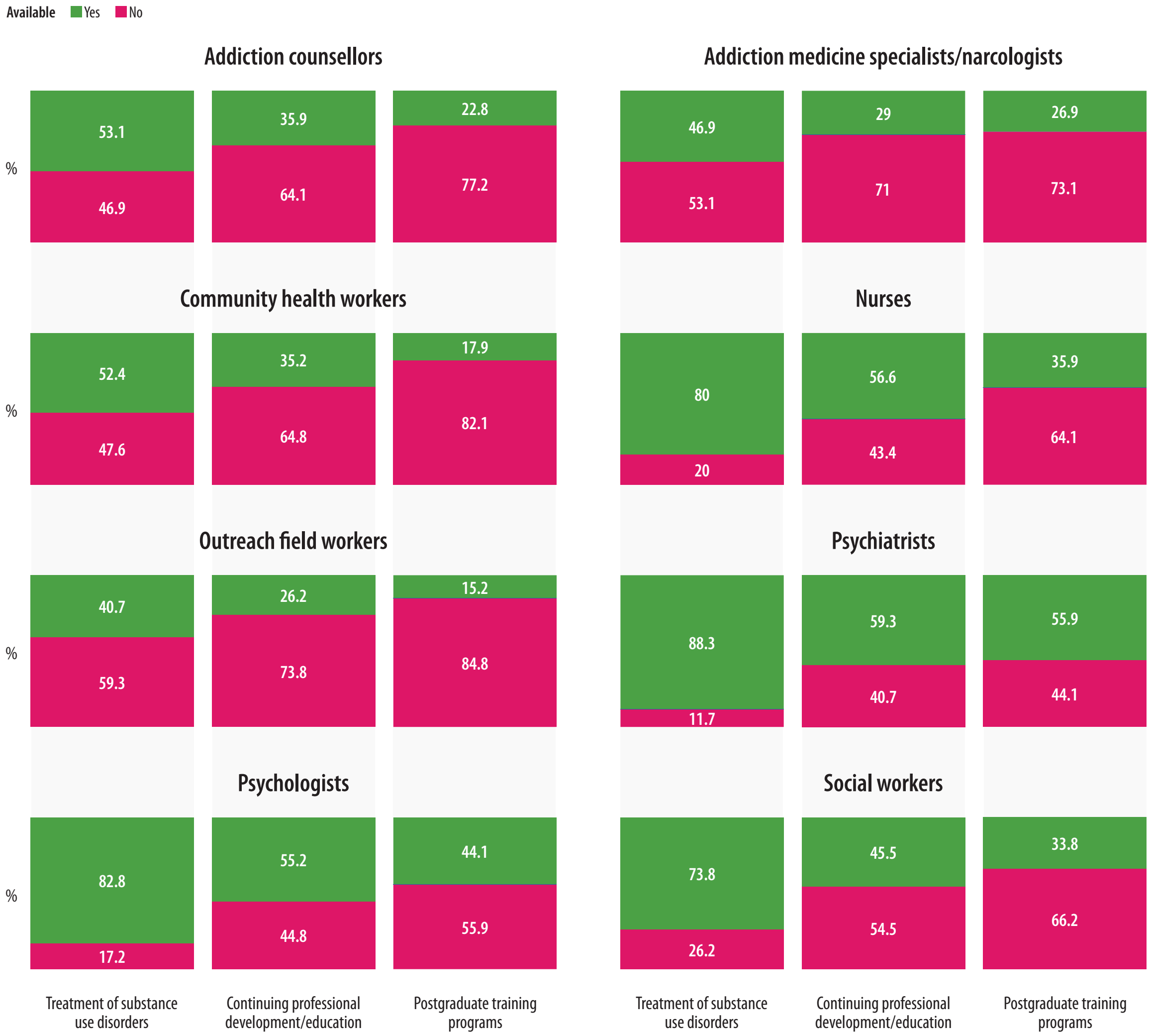
3.1.14 The workforce for treatment of substance use disorders largely consists of psychiatrists, psychologists, social workers and nurses in most countries, while specialized education and training programmes for these professional groups are available only in about half of the countries

A key element for promoting the expansion and development of the treatment system is professional workforce development that is designed to increase the number of trained professionals who can provide high-quality prevention and treatment services and interventions. Medical doctors, psychologists, nurses, social workers and trained counsellors are needed to meet the treatment needs of patients who are referred for specialized care, and to deliver training, support and supervision to non-specialists who are critical for increasing the treatment coverage for substance use disorders and impact of treatment at population level. Effective workforce development requires the education and training of the above-mentioned health professionals at all stages of professional education: from pre-service or undergraduate, through postgraduate to continuing professional education and training.

Among the health professions directly involved in treating persons with substance use disorders in most countries are psychiatrists, general practitioners and narcologists (addiction medicine specialists). In recent years workforce development has been changing – predominantly in the high-income countries of Europe and North America – with the growth of specialized training programmes for addiction treatment specialists at the bachelor, master and doctoral levels to enable them to deliver services and manage programmes (Miovsky et al., 2014; Pavlovská et al., 2019).

A variety of professionals are available in most countries for the treatment of substance use disorders (Figure 3.20). More than 88% of countries have psychiatrists, about 83% have psychologists, 80% have nurses, 74% have social workers, 53% have addiction counsellors and 52% have community health workers. Other specialties are available in less than half the countries: around 47% reported having addiction medicine specialists and around 40% have community health workers.

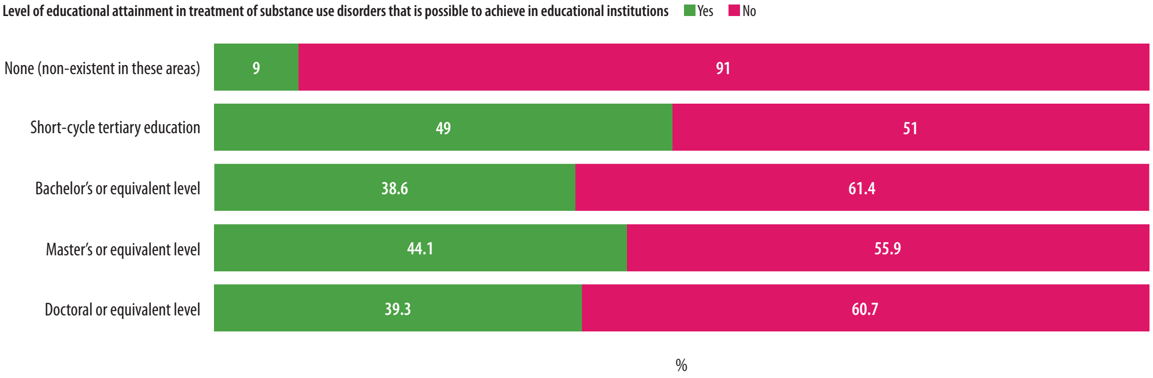
Figure 3.20 **Proportion (in %) of countries with involvement of different health professionals in provision of treatment for substance use disorders and availability of postgraduate and continuous education and training for them, 2019**
(n=145 countries reporting)



In most countries continuing professional development/education is available for psychiatrists (about 60%), psychologists (50%) and nurses (57%), but it is available for community health workers and addiction counsellors in less than 40% of reporting countries, and for addiction medicine specialists in just 29% of reporting countries. In less than one third of reporting countries, postgraduate training programmes are available for addiction medicine specialists (27%) and addiction counsellors (23%).

In about 10% of reporting countries there is no access for health professionals to any level of educational attainment in the field of treatment of substance use disorders (Figure 3.21).

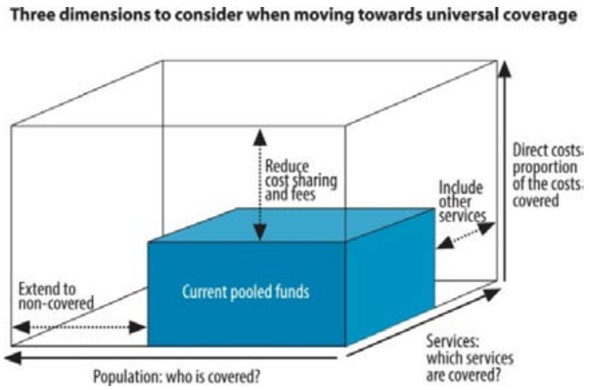
Figure 3.21 Proportion (in %) of countries with availability of different levels of educational attainment for professionals involved in provision of treatment and care for people with substance use disorders, 2019 (n=145 countries reporting)



3.2 Treatment coverage and Service Capacity Index (SCI) for substance use disorders

Treatment coverage can be conceptualized at different levels (Boerma et al., 2014. In the broader sense, health service coverage can be defined as the extent of the interaction between the service and the people for whom the service is intended (Tanahashi, 1978). From a multidimensional perspective, coverage can be presented with three branches (Boerma et al., 2014): 1) the proportion of the population covered; 2) the range of services covered; and 3) the proportion of costs covered (Figure 3.22). Under the framework of availability coverage, universal health coverage (UHC) is achieved when everyone who needs health services (promotion, prevention, treatment, rehabilitation and palliation) is able to receive them, without undue hardship (WHO, 2013a).

Figure 3.22 Dimensions of universal health coverage (WHO, 2013)


Three dimensions to consider when moving towards universal coverage
Reduce cost sharing and fees
Include other services
Direct costs proportion of the costs covered
Extend to non-covered
Current pooled funds
Population: who is covered?
Services: which services are covered?

Treatment needs can be specified further, and several types of treatment needs are described: felt needs (what people want), expressed needs (what people say, or ask for), normative needs (need according to standard, e.g. the number of people who meet criteria for diagnosis), comparative needs (needs of different groups), and anticipated or future need (Asadi-Lari et al., 2003).

In the narrow sense, treatment coverage can be approached from a one-dimensional perspective, and can be understood as a specific coverage (provision-specific, population-specific, or service-specific) (e.g. coverage of specific health services, of an intervention or of a set of interventions, and/or financial protection schemes) (Boerma et al., 2014a). Treatment coverage can be measured at different levels, namely availability coverage (the number of people for whom it is available in a given population), accessibility coverage (the number of people who can use it in a given population), acceptability coverage (the number of people who are willing to use it), contact coverage (the number of people who use the service in a given population), and effective coverage (the number of people who receive effective care). The first three levels (availability, accessibility, acceptability) are grouped as potential coverage and the last two (contact, effectiveness) are classed as actual coverage (Figure 3.23) (Tanahashi, 1978; De Silva et al., 2014).

Figure 3.23 Potential and actual treatment coverage (based on Tanahashi, 1978; De Silva et al., 2014)

POTENTIAL COVERAGE

Availability coverage –
for whom it is available

Accessibility coverage –
who can use it

Acceptability coverage –
who are willing to use it

ACTUAL COVERAGE

Contact coverage –
who use the service

Effectiveness coverage –
who receive effective care

The contact coverage of treatment for substance use disorders can be computed by dividing the number of people receiving treatment services by the total number of people with substance use disorders in need of treatment in the same year, ideally disaggregated for alcohol and drugs. With an assumption that all people with substance use disorders require at least some treatment, this computation at the population level requires the availability of data on both the prevalence of substance use disorders and service utilization (Krupchanka et al., 2023).

As presented earlier in this report, SDG health target 3.5 to "strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol" includes SDG 3.5.1 indicator "Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders". The estimation of actual treatment coverage for alcohol and drug use disorders presents significant methodological challenges and requires the availability, and regular monitoring of, several key indicators – including the number of people using services for treatment of alcohol or drug use disorders, the estimated number of people in need of such services, and the prevalence of alcohol and drug use disorders in populations that can be considered as a proxy measure for the number of people in need of the services. Additional challenges are associated with the distribution of treatment and care services for alcohol and drug use disorders across different governmental and nongovernmental sectors and structures (such as medical, social, criminal justice) that complicate further collection, collation and analysis of available information (Krupchanka et al., 2023).

In view of these methodological difficulties, and building on previous experience with the WHO Substance Abuse Instrument for Mapping Services (SAIMS) (Babor & Poznyak, 2010) and the WHO Global Information System on Resources for the Prevention and Treatment of Substance Use Disorders (WHO ATLAS-SU) (WHO, 2010), the WHO developed a methodology for estimating the Service Capacity Index for substance use disorders (SCI-SUD). This is a metric that reflects the national capacity of health systems to provide treatment for alcohol and drug use disorders in terms of the proportions of available service elements in a given country from a theoretical maximum (Krupchanka et al., 2023). The methodology is based on data submitted by countries on the availability of different components of treatment systems which are important for providing treatment for substance use disorders. For more details on methods for data collection and analysis, see Annex 1 and the methods paper (Krupchanka et al., 2023). SCI-SUD is proposed as a complementary proxy measure for assessing and monitoring treatment coverage for substance use disorders.

Increased treatment coverage for alcohol and drug use disorders is one of key priorities for achieving the goal of reducing the health and social burden due to psychoactive substance use. Currently available evidence of effectiveness and cost-effectiveness of treatment interventions for alcohol and drug use disorders points towards a high probability of a significant impact on the alcohol- and drug-attributable health and social burden in populations, with substantial increase in treatment coverage of treatment for substance use disorders (Corredor-Waldron & Currie, 2022; Swensen, 2015; Strang et al., 2020; MacKillop et al., 2022).

3.2.1 Although effective treatment options for substance use disorders exist, treatment coverage as estimated by different metrics is very low, and the proportion of people with substance use disorders in contact with treatment services varies from less than 1% to no more than 35% in all countries where such data are available

The estimation of contact treatment coverage – or the proportion of people with substance use disorders in contact with treatment services – presents substantial challenges for all countries because of the necessity to have comprehensive data on service utilization (in view of different sectors and entities involved in service provision) and the estimates on prevalence of alcohol and drug use disorders in populations. Because of these difficulties, the data on treatment contact coverage are available for only 17 countries for alcohol use disorders (Table 3.4) and 16 countries with regard to drug use disorders (Table 3.5). However, the data presented indicate there are very low levels of contact treatment coverage in majority of countries.

According to the data from WHO's SDG3.5 Survey, treatment contact coverage for both alcohol and drug use disorders ranges from extremely low (0.3%) to a maximum of 35% for drug use disorders and 14% for alcohol use disorders in countries that were able to report these data (Table 3.4 and Table 3.5).

Table 3.4 Treatment contact coverage for alcohol use disorders (AUD)

Country	AUD contact coverage (%)	Year
Angola	0.4	2016
Barbados	0.3	2016
Belgium	1.2	2018
Czechia	4.0	2016
Grenada	3.5	2016
Iceland	4.2	2016
Italy	10.0	2016
Mongolia	3.2	2016
Morocco	7.1	2016
Netherlands (Kingdom of the)	13.8	2016
Nicaragua	0.6	2016
Republic of Moldova	3.0	2016
Saudi Arabia	3.2	2016
Slovakia	5.3	2016
Tajikistan	1.3	2016
Turkey	1.4	2016
Ukraine	10.6	2016

Table 3.5 Treatment contact coverage for drug use disorders (DUD)

Country	DUD contact coverage (%)	Year
Belarus	10.0	2018
Belgium	7.8	2018
Croatia	23.5	2018
Czechia	14.8	2018
Grenada	19.1	2018
Iceland	35.0	2018
Italy	26.6	2017
Latvia	2.1	2017
Mongolia	0.3	2018
Netherlands (Kingdom of the)	20.0	2015
Nicaragua	7.4	2017
Republic of Moldova	2.2	2018
Saudi Arabia	19.8	2018
Slovakia	8.4	2017
Tajikistan	3.4	2018
Ukraine	8.0	2018

3.2.2 About one third of countries do not collect data on epidemiology of substance use disorders, and more than 40% of responding countries do not collect data on service provision and service utilization for treatment of substance use disorders

As described previously in this chapter, any estimation of treatment coverage for alcohol and drug use disorders implies the systematic collection and analysis of data on the provision and utilization of services and interventions for substance use disorders and data on the prevalence of substance use disorders in populations, preferably with disaggregation on severity and service needs. This requires the development of health information systems for substance use disorders as a set of technologies for collecting, storing, delivering and analysing medical and health-care data. The data collected from WHO Member States in 2019 indicate that there are significant gaps in the development of such information systems in countries. This situation, together with limited capacity to undertake regular population-based surveys to generate data on the prevalence of substance use disorders, makes estimations of treatment coverage for substance use disorders at national level a very challenging task.

About one third of countries do not collect epidemiological data on the prevalence of substance use disorders with little differences for alcohol and drug use disorders (Figure 3.24), and more than 40% of responding countries do not collect any data on service provision and service utilization for treatment of alcohol and drug use disorders (Figure 3.25).

While many countries (61%) reported the availability of national systems for collecting quantitative data on service utilization for treatment of substance use disorders, only about one third (32%) provided data on "Number of people diagnosed with substance use disorders who received treatment in the last reporting year". Even the data that were provided had substantial limitations, being either not nationally representative or referring to numbers of cases and not people, or covering only some parts of the treatment system.

Figure 3.24 Proportion (in %) of countries collecting data on prevalence of alcohol and drug use disorders, 2019
(n=145 countries reporting)

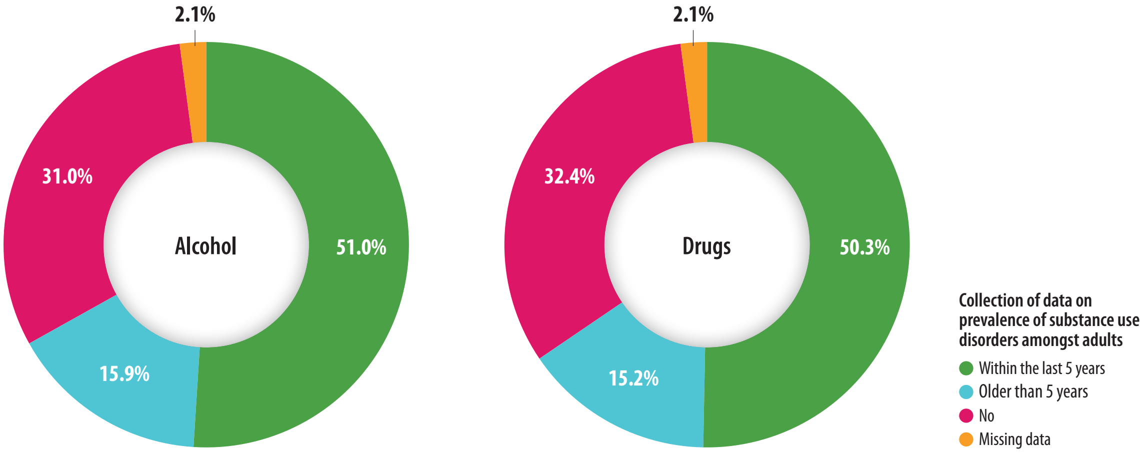
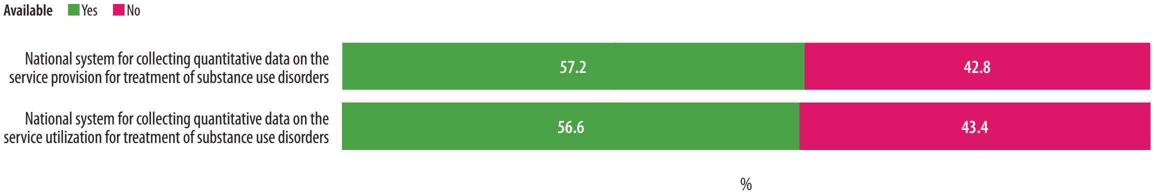


Figure 3.25 Proportion (in %) of countries collecting data on service provision and service utilization for the treatment of substance use disorders, 2019
(n=145 countries reporting)



3.2.3 The Service Capacity Index for Substance Use Disorders (SCI-SUD) is proposed as a complementary contextual metric for the assessment and monitoring of treatment capacity of health and social care systems for alcohol and drug use disorders in the context of global monitoring of treatment coverage for substance use disorders

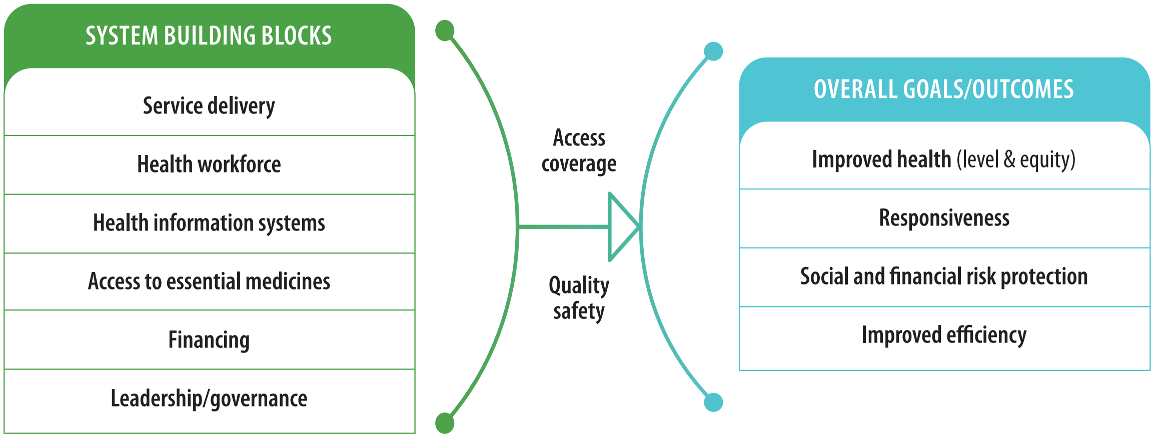
The previous sections of Chapter 3 described existing challenges in estimation of treatment coverage for substance use disorders. While further improvement of the capacity of data collection and reporting on treatment contact coverage is needed at all levels, there is also a need to monitor the capacity of health and social care systems to provide treatment and care for alcohol and drug use disorders in the context of SDG 3.5.1 global monitoring.

The Service Capacity Index for Substance Use Disorders (SCI-SUD) is introduced as a complementary integrative measure of treatment systems for substance use disorders. The functioning of treatment systems depends on many factors and components – including the workforce, funding, the supporting information systems, the availability of medicines and other supplies, communications and overall guidance and direction to function.

The development of SCI-SUD was based on the WHO Framework for Monitoring Health Systems that describes health systems in terms of core components or “building blocks” (WHO, 2010b). This framework helps in breaking down the complex construct of “health systems” into defined elements. It allows for the identification of indicators and measurement strategies for monitoring progress in capacity and performance of health systems in general as well as in particular areas of health systems – such as services for substance use disorders.

WHO’s Framework for Monitoring Health Systems does not attempt to cover all components of the health system or deal with the various monitoring and evaluation frameworks. Instead, it is structured around the WHO framework that describes health systems in terms of six core components or “building blocks” (see Figure 3.26): 1) service delivery; 2) health workforce; 3) health information systems; 4) access to essential medicines; 5) financing and 6) leadership/governance.

Figure 3.26 The six building blocks of a health system: aims and desirable attributes (WHO, 2010b)



As the data required to produce the estimates for SCI-SUD are largely available to key informants in countries involved in WHO's global surveys, it is possible to produce the estimates of service capacity for all the countries and territories that submitted responses to WHO. Then, using a multiple imputation approach, it is possible to produce estimates for all countries and territories. The details of the SCI-SUD methodology are presented in Annex 1 and in a methodology paper (Krupchanka et al., 2023).

The methodology for data collection and analysis (producing comparable SCI-SUD estimates for all countries) offers a new approach to monitoring the capacity of treatment systems to deliver services to people with disorders due to alcohol and drug use. It demonstrates the feasibility of continuing monitoring and reporting that: 1) is based on national data; 2) is feasible for monitoring at global, regional and national levels; 3) produces data that are comparable across countries; and 4) can inform local actions for service strengthening.

On the basis of the data collected, it is possible to produce an index reflecting the overall capacity of services to provide treatment for people with substance use disorders, but also specifically for alcohol use disorders (AUD) and drug use disorders (DUD). This could be important information reflecting differences in service provision for these conditions. All three directly derived indices (SCI-SUD, SCI-AUD, SCI-DUD) and imputed SCI-SUD are strongly associated with macro-level economic and health care-related variables, as well as with variables related to the basic epidemiology of substance use (SU) and SUD (Figure 3.27, Figure 3.28, Figure 3.29).

Figure 3.27 SCI-SUD association with Universal Health Coverage service coverage index (SDG indicator 3.8.1), 2019

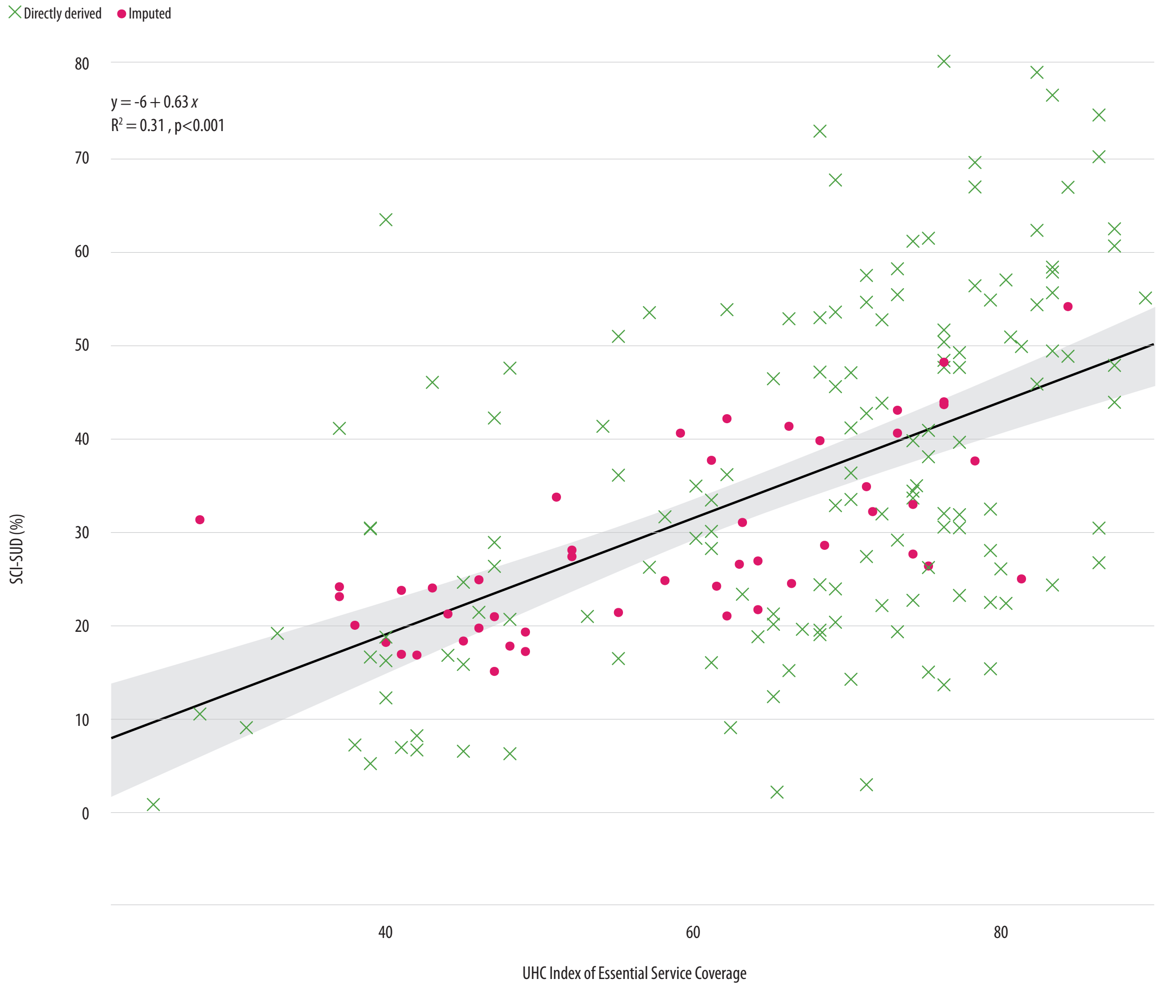


Figure 3.28 SCI-SUD association with number of physicians in a country per 100 people, 2019

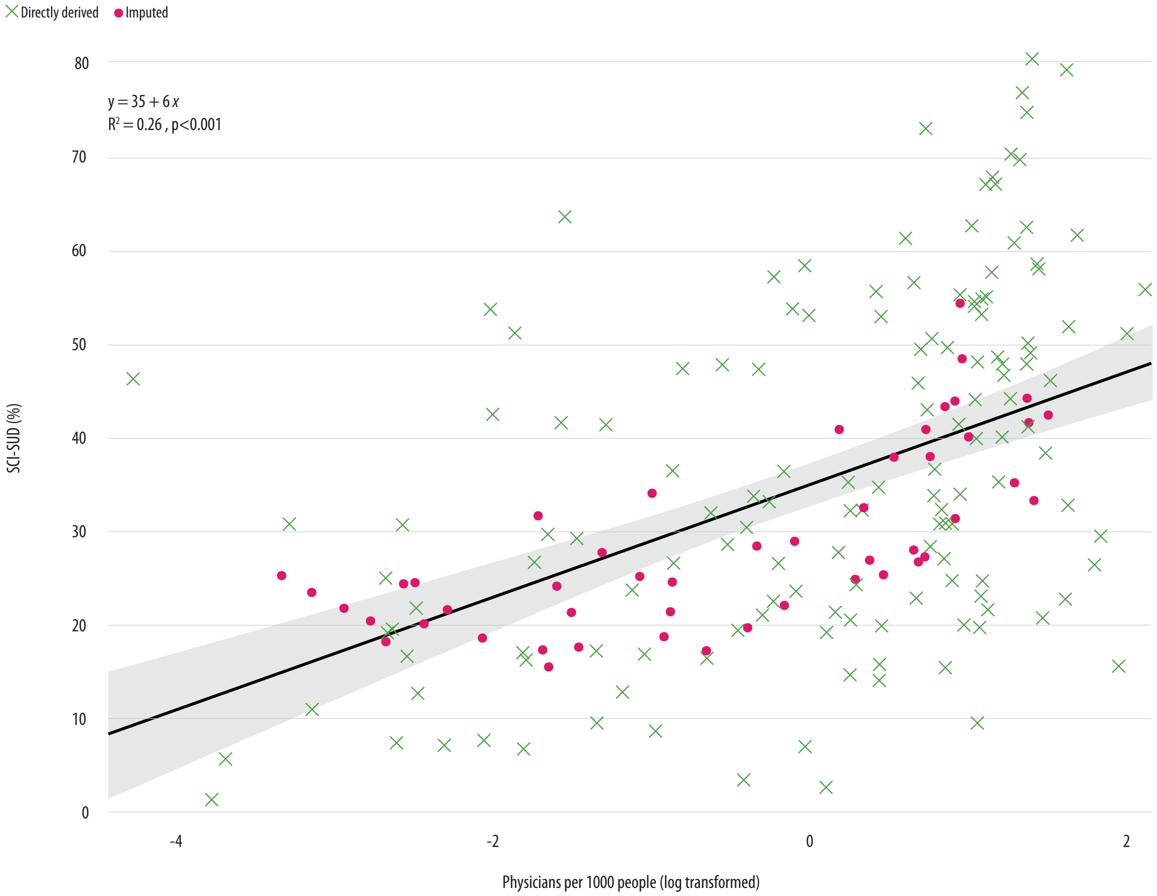
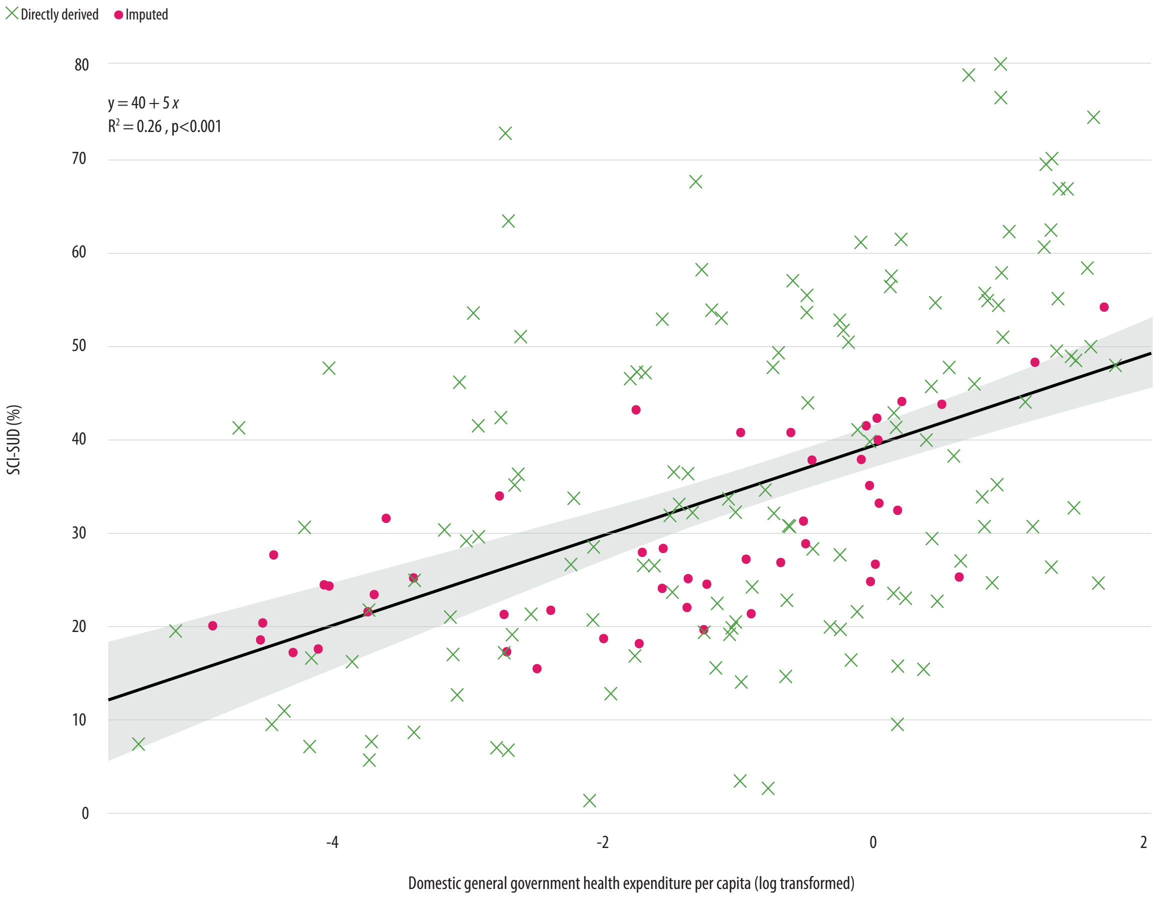


Figure 3.29 SCI-SUD association with domestic general governmental health expenditure per capita

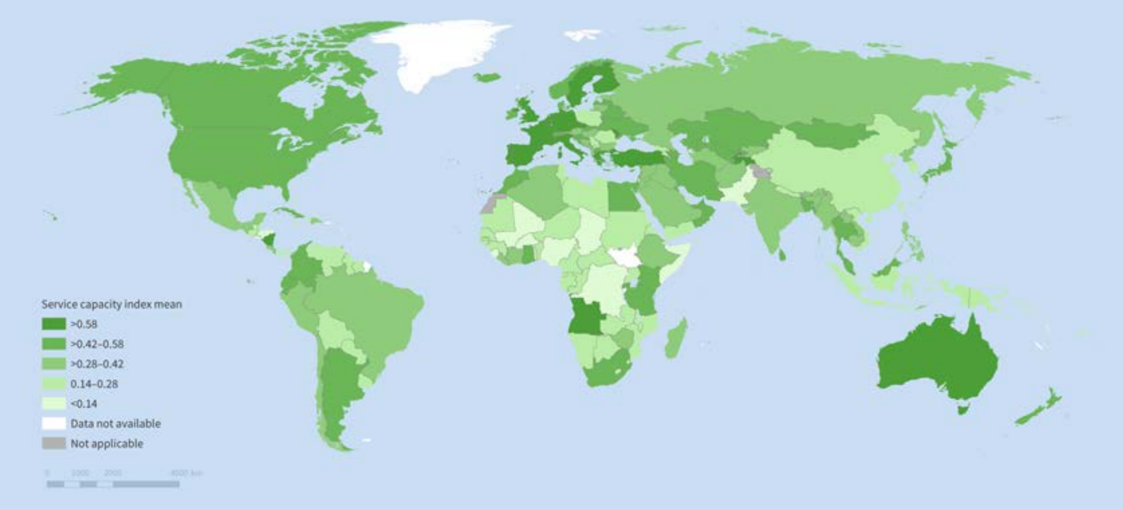


3.2.4 Worldwide service capacity for substance use disorders varies significantly between countries with differences ranging more than 20-fold from 0.01 to 0.8, or from 1% to 80% of maximally possible health system elements for the treatment of substance use disorders

As described previously, the SCI-SUD indicates proportions of available service elements for the treatment of substance use disorders in a given country based on a theoretical maximum. This approach creates opportunities for targeting activities in countries by focusing on elements that are missing or underdeveloped in reporting areas.

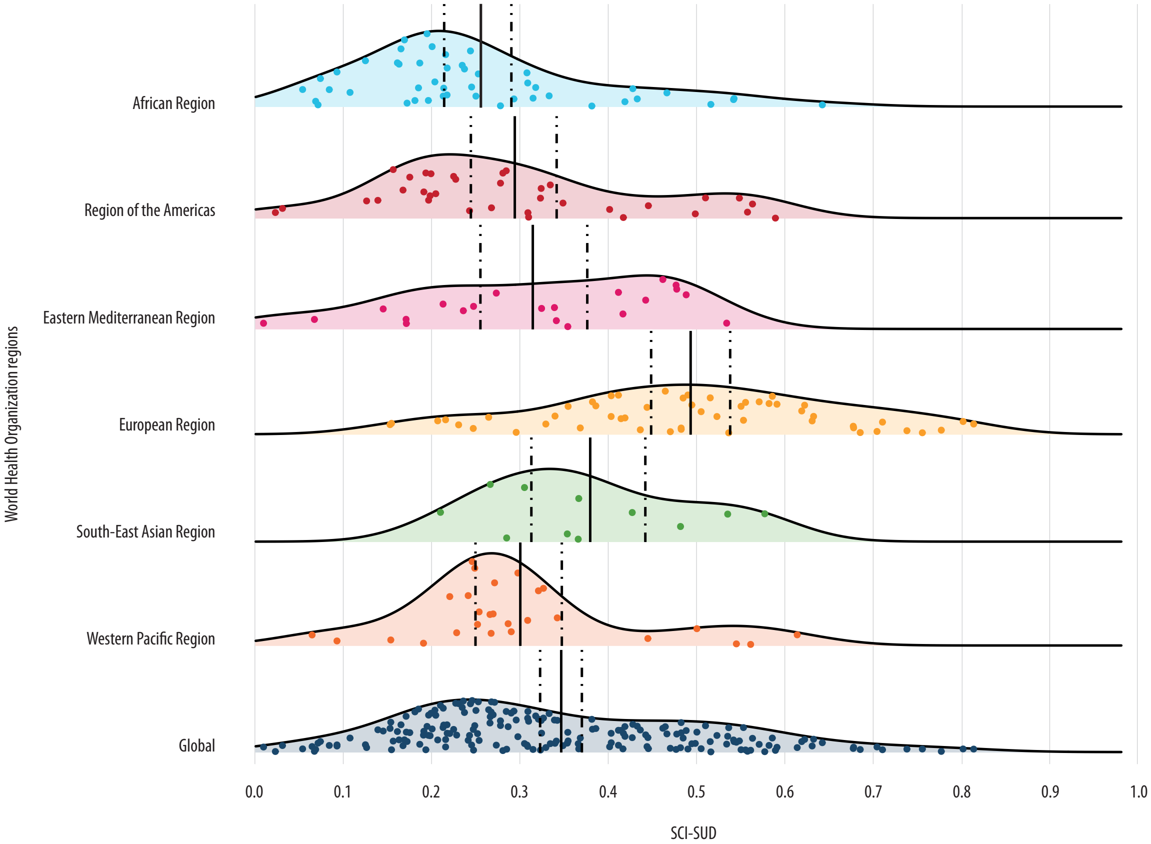
Service capacity for substance use disorders varies significantly between countries with differences ranging more than 20-fold from 0.01 to 0.8, or from 1% to 80% of maximally possible health system elements for treatment of substance use disorders (Annex 3, Table A3.1). Variations in SCI-SUD at country level are presented in Figure 3.30. Data for SCI-AUD and SCI-DUD are available in the annexes.

Figure 3.30 **SCI-SUD in countries of the world, 2019**



On average, service capacity for the treatment of substance use disorders is highest among countries of the European Region and lowest among countries of the African Region (Figure 3.31).

Figure 3.31 SCI-SUD by WHO regions and the world, 2019

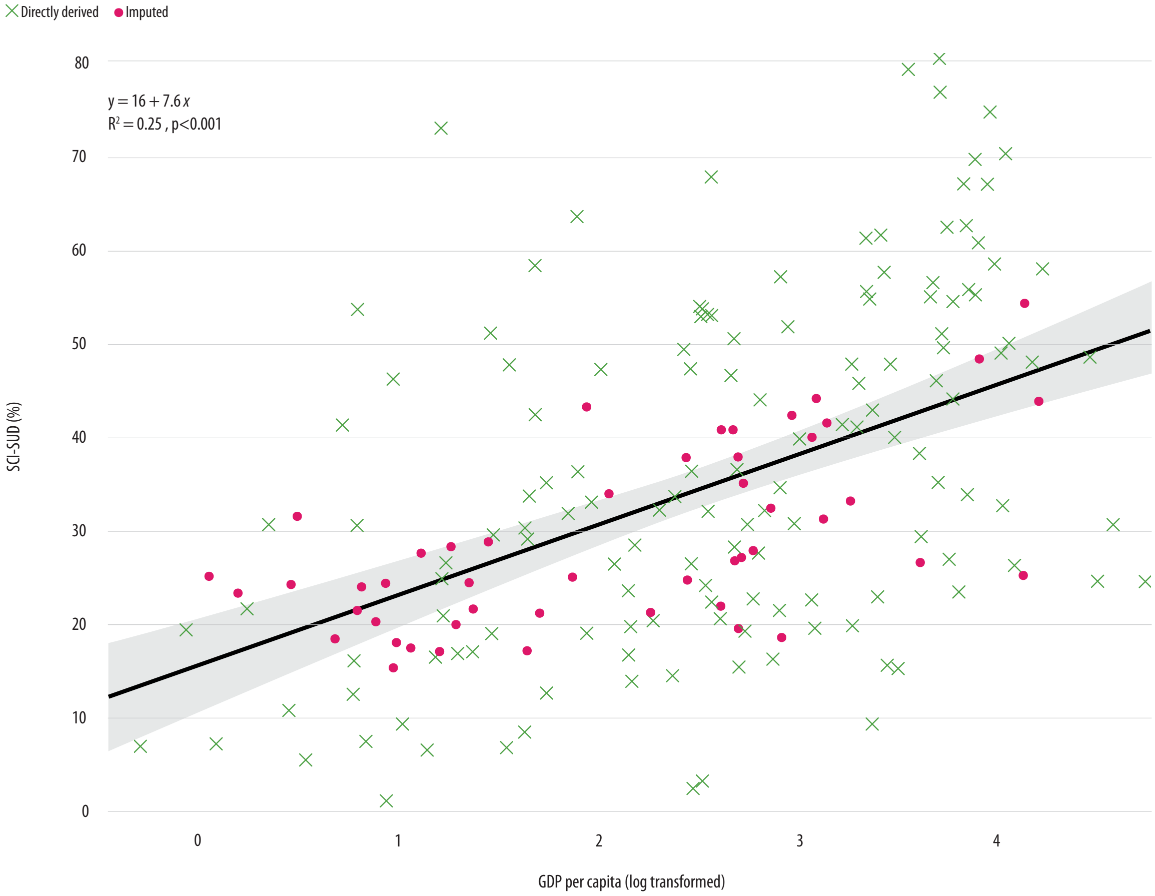


Note: The graph depicts the distribution of SCI-SUD values by WHO regions. The points represent individual countries; however, a small amount of random variation is added to the location of each point to avoid overplotting (i.e. jittered points). The solid vertical line represents the average SCI-SUD, while the vertical dashed lines correspond to the lower and upper boundaries of the 95% confidence interval.

3.2.5 Service capacity for treatment of substance use disorders correlates with income levels; the lowest service capacity is observed in low-income countries, but there are examples of higher treatment capacity even in countries with lower income levels

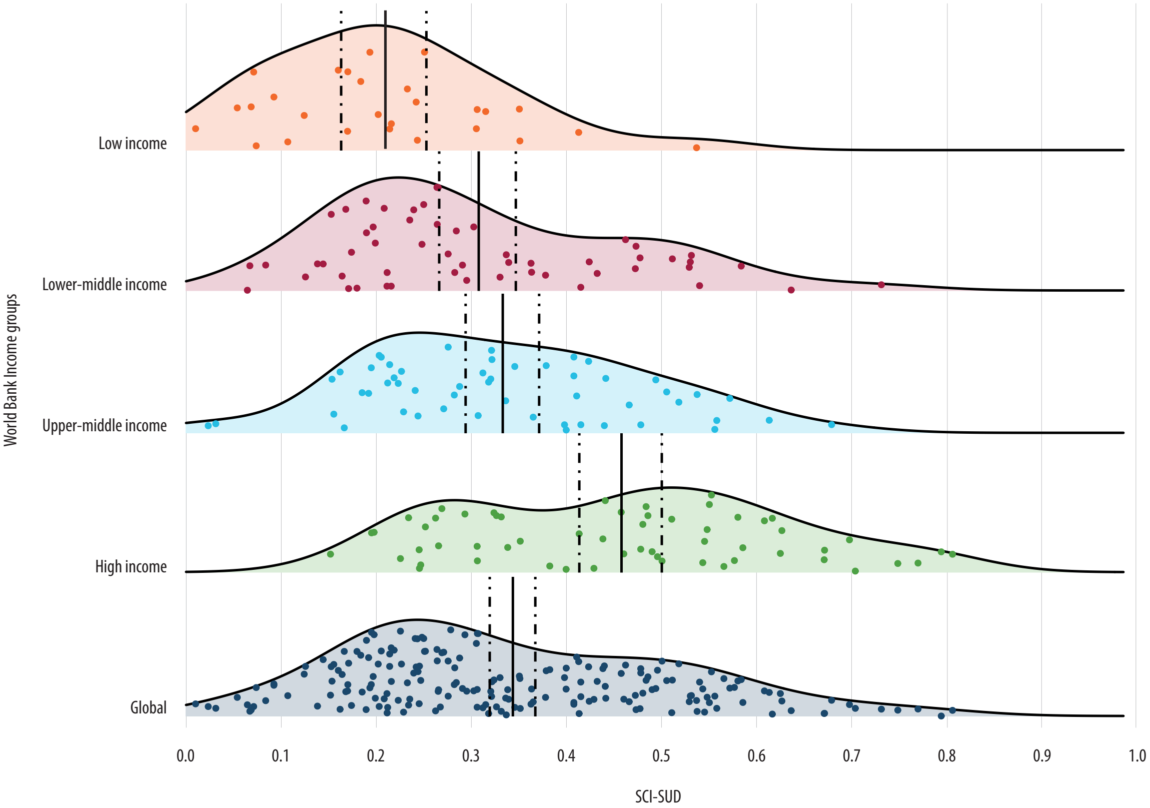
The capacity of services to provide treatment for substance use disorders differs across countries with different income levels. SCI-SUD shows positive association with GDP per capita (R=0.25, p<0.001), with higher values of the index in countries with higher GDP per capita (Figure 3.32).Service capacity is highest in high-income countries and decreases by country income group (Figure 3.33).

Figure 3.32 SCI-SUD association with GDP per capita, 2019

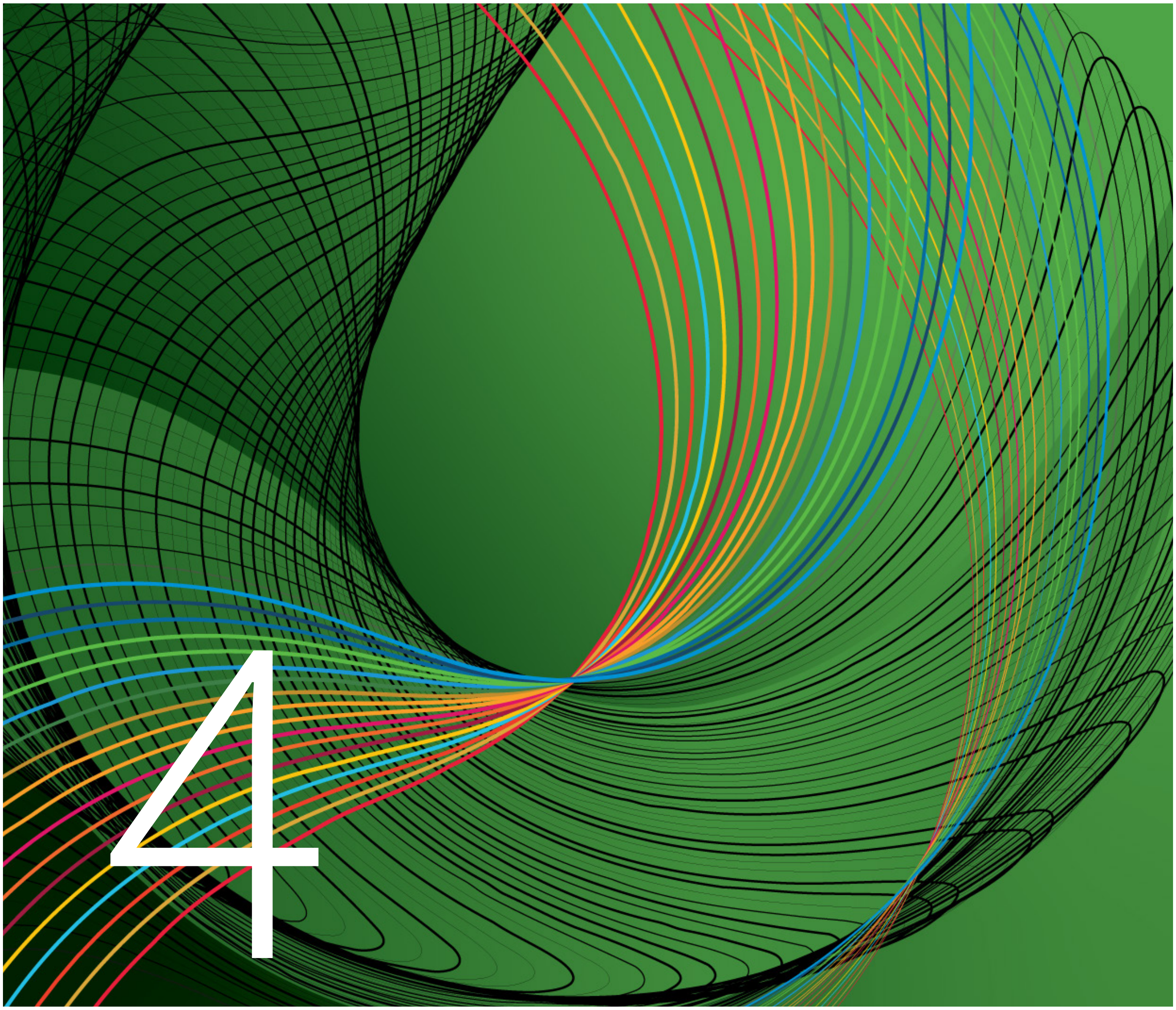


The distribution of SCI-SUD by income level (Figure 3.33) indicates that even in low- and lower-middle-income settings there are examples of high service capacity (up to 50% in low-income countries, and 75% in lower-middle-income countries) while also some low SCI-SUD in the high-income group. These are rather outliers from the trend of strong association between level of resources and treatment capacity, but they also indicate that treatment capacity is not a question only of resource availability.

Figure 3.33 SCI-SUD by World Bank income groups and the world, 2019



Note: The graph depicts the distribution of SCI-SUD values by World Bank income groups. The points represent individual countries; however, a small amount of random variation is added to the location of each point to avoid overplotting (i.e. jittered points). The solid vertical line represents the average SCI-SUD, while the vertical dashed lines correspond to the lower and upper boundaries of the 95% confidence interval.



4

Conclusions: towards attainment of SDG health target 3.5

CHAPTER 4

Conclusions: towards attainment of SDG health target 3.5

As presented in the previous chapters, the nonmedical use of psychoactive substances has a broad and unacceptably high negative impact on health and development. The harms due to substance use depend primarily on the levels and patterns of that use and the prevalence of substance use disorders (SUD) in populations. Additionally, the harms are significantly influenced by broader societal factors, including socioeconomic development, regulatory frameworks, cultural norms, alcohol and drug policies and the criminal justice system's responses to substance use, as well as the availability, accessibility and quality of prevention, treatment and harm reduction interventions. All these factors need to be addressed in comprehensive efforts to reduce the burden attributable to the use of alcohol and psychoactive drugs in line with the objectives of health target 3.5 in the SDG 2030 agenda (UN, 2015).

This concluding chapter presents several key messages which are considered to be important, timely and feasible and that should be addressed at different levels in order to accelerate progress towards the attainment of SDG health target 3.5 by 2030 – to "strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol".

4.1 A *coordinated global advocacy campaign* is needed to increase awareness of: 1) the dimensions and impact of substance use and SUD on health and development; and 2) the importance and effectiveness of public health approaches to substance use and related harm

As described in chapters 1 and 2 of this report, the global burden of disease due to psychoactive substance use is high and largely preventable. Despite the inclusion of SDG health target 3.5 on "strengthening prevention and treatment of substance abuse" in the SDG 2030 development agenda, prioritization of this target in public health and developmental agendas remains insufficient and is not commensurate with the overall health and social burden attributable to substance use worldwide. With the current low level of prioritization across different domains, from public health policies to health service responses to substance use and SUD, it is hardly possible to expect significant progress towards achievement of SDG 2030 health target 3.5.

Health should be placed at the centre of decision-making in policy and programme responses to substance use and SUD in populations and therefore requires strong advocacy support. A proposed global advocacy campaign should address the factors that influence substance use in populations – including its social and commercial determinants, the nature of SUD and the availability of effective prevention and treatment interventions – as well as the stigma and discrimination associated with substance use and SUD that hamper access to treatment and care.

Well documented (Babor et al., 2018; Babor et al., 2023) effective public health responses to substance use and associated health conditions must ensure access to effective and ethical prevention, treatment and care, as well as to evidence-based harm reduction interventions to help people to reduce their risks, minimize health consequences and access opportunities for recovery.

4.2 The *prevention and treatment capacity of health and social care systems* for health conditions due to substance use should be strengthened as an integral part of Universal Health Coverage and in alignment with SDG health target 3.5

The data presented in Chapter 3 of this report indicate that health and social care systems in many countries lack important components for a comprehensive and effective response to SUD and substance use as a risk factor for numerous health conditions and poor health outcomes. Most countries do not have national action plans on the development of treatment systems for SUD or specific budget lines for the relevant government expenditures. Across practically all domains of health system responses, a parity for SUD with other health conditions continues to be an elusive goal. The proportion of people with alcohol and drug use disorders in contact with treatment services varies significantly across countries from less than 1% to not more than 35% in the majority of countries where such data are available. Data collection and reporting on treatment coverage for substance use disorders continue to be a significant challenge. One third of countries do not collect data on epidemiology of SUD and more than 40% of reporting countries do not collect data on service provision and service utilization for treatment of SUD.

The capacity of health and social care systems to provide effective and ethical prevention and treatment interventions for health conditions due to substance use should be strengthened as an integral part of Universal Health Coverage and in alignment with SDG health target 3.5. The concept of Universal Health Coverage implies that all people with SUD should have access to the full range of quality health services they need, when and where they need them, without financial hardship; additionally, these health services should include the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care across the life course (WHO, 2023a). Treatment services should be of high quality, evidence-based, affordable, accessible and respectful of human rights (WHO/UNODC, 2020; WHO, 2024). Social and health services and a variety of benefits (e.g. food stamps, employment, housing assistance) which are particularly needed for certain vulnerable subpopulations with SUD, are often denied to them due to stigma associated with substance use disorders, discriminatory practices and limited resources for these purposes.

Achievement of significant progress in strengthening the capacity of health and social care systems to provide effective and ethical prevention and treatment interventions for health conditions due to substance use requires increased investment in the essential “building blocks” of an effective health system response, including: 1) effective leadership and governance of service responses to SUD and hazardous substance use based on the public health approach; 2) adequate financing corresponding to the public health burden attributable to SUD and the potential for its reduction; 3) access to essential medicines, including medicines under international control, for the treatment of SUD and associated health conditions; 4) available, accessible and affordable health services responding to population needs and covering the whole spectrum of health conditions due to substance use; 5) health information system that allow the monitoring of population needs and the effectiveness of service responses; and 6) a health workforce that can deliver and is interested in delivering effective prevention, treatment and harm reduction interventions.

4.3 Major efforts are needed to accelerate *training of health professionals* at all levels of the health system not only on delivering effective prevention and treatment interventions for health conditions due to substance use, but also effective public health strategies to reduce the health and social burden attributable to substance use

As described in this report, substance use and SUD are highly prevalent and have a significant impact on incidence and outcomes of practically all health conditions. The potential of health services to reduce the health and social burden caused by substance use depends largely on the roles and competencies of health professionals in development, delivery and support of effective prevention and treatment strategies and interventions, including population-based approaches.

Health workers at all levels of the health system have a role in conducting screening and brief interventions and providing referrals to specialized treatment, as well as in delivering pharmacological and psychosocial treatment interventions, including in non-specialized settings. Health professionals have an important role in educating their clients and broader population groups on the health effects of psychoactive substances, the nature of substance use disorders, effectiveness and need for effective prevention interventions, including population-based measures, and helping people to address common myths about substance use and SUD and avoid the stigma associated with seeking treatment for alcohol and drug use disorders.

One of the major barriers to scaling up treatment for SUD is a lack of, or insufficient development of, specialized education and training opportunities for the health workforce on identification, diagnosis and treatment of disorders due to substance use and addictive behaviours. That includes the lack of, or insufficient development of, a postgraduate level of medical education in this area which is the basis for developing a specialized health workforce and service provision. This challenge is aggravated by the rapidly growing complexity and diversity of the knowledge base in the field of addiction medicine, the continued diversification of psychoactive substances with the emergence of new highly potent synthetic drugs, and the increasing treatment demand associated with addictive behaviours. There is a need to develop and implement appropriate frameworks and guidance documents on the education and training of health professionals working at different levels of health systems and in different specialties of medicine – including the core competencies required for effective prevention and management of health conditions due to substance use and addictive behaviours, as well as standardized training programmes and modules.

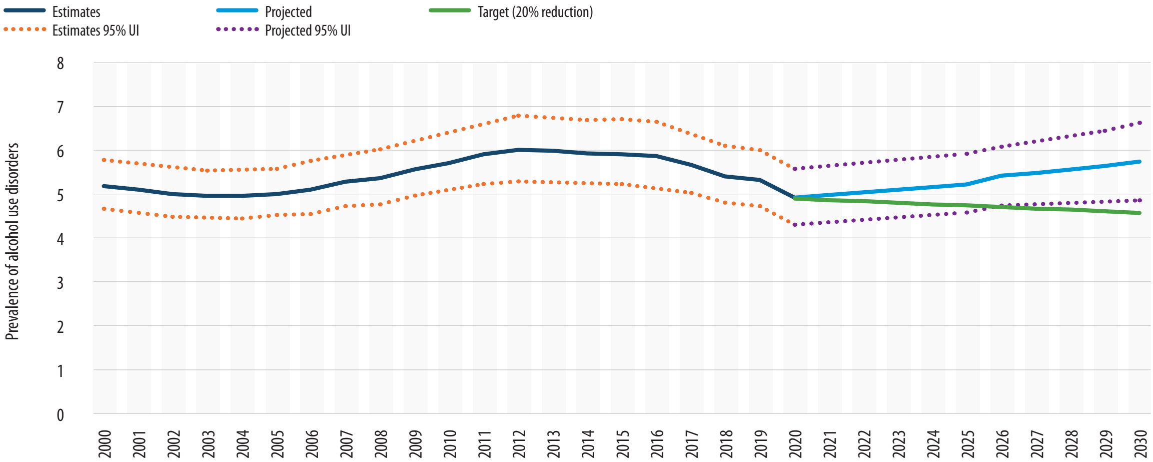
The emergence of university-based clinical training programmes in many high-income countries, as well as specialized graduate and postgraduate clinical and research fellowships, offers the potential to scale up training and capacity-building in low- and middle-income countries if training opportunities are shared and coordinated.

4.4 The current trends indicate that the global target set for alcohol consumption will not be met by 2030, and achievement of this target will require political commitment, strong advocacy and resource mobilization for the *rigorous implementation of the Global alcohol action plan 2022–2030*, with a focus on the high-impact policy measures included in the SAFER package

The Global alcohol action plan 2022–2030 sets the target of at least a 20% relative reduction in the harmful use of alcohol in 2030 in comparison with 2010, while for alcohol consumption the main indicator is per capita alcohol consumption (WHO, 2024). As presented in Chapter 2, since the adoption of the Global strategy to reduce the harmful use of alcohol in 2010 (WHO, 2010a), global per capita alcohol consumption declined to some extent by 2019 in comparison with 2010 with significant differences in trends across WHO regions. The documented substantial decline in alcohol consumption in 2020 in comparison with 2019 and 2010 is largely due to the changes in global alcohol consumption during the COVID-19 pandemic (Sohi et al., 2022). Current data point to a high probability of a reversing increasing global trend in alcohol consumption in the post-COVID period, as illustrated in Figure 4.1. The projected estimates of total alcohol per capita consumption for the period 2020–2030 with inclusion of a 20% reduction scenario, adjusted for the changes in global alcohol consumption during the COVID-19 pandemic, indicate that it is hardly possible to achieve a target of 20% reduction.

The projected trends are consistent with the limited progress on the adoption of effective population-based alcohol policies as described in Chapter 2, with most countries reporting limited or no progress in implementing the “best buys” in alcohol policy since 2010. Regions and countries which had larger documented reductions in per capita alcohol consumption were also the ones that adopted strong alcohol policies at the population level.

Figure 4.1 Total adult (aged 15+ years) per capita consumption (APC) in litres of pure alcohol, with projected estimates for 2020–2030 and inclusion of a 20% reduction scenario as compared to 2010



Reversal of this scenario and achievement of the global targets and tangible results in reduction of alcohol-related harm will require political commitment, strong advocacy and resource mobilization for the effective and rigorous implementation of the Global alcohol action plan 2022–2030 (WHO, 2024) with a focus on the policies of high impact included in the SAFER package (WHO, 2019a).

4.5 *International efforts on capacity-building and knowledge transfer* must be rapidly accelerated to enable the development and implementation of effective public health policies and interventions, including strengthening of the networks of country focal points, the relevant staff of health authorities and technical experts

As described in this report, there are significant differences between the capacities of countries to achieve and document tangible progress towards achievement of SDG health target 3.5. As noted in chapters 2 and 3, substantial differences exist between countries at the levels of development and implementation of alcohol policies and prevention and treatment policies. Consequently, service capacity for the treatment of SUD varies significantly worldwide with more than 20-fold differences between countries. The capacity for policy-making, effective advocacy, data analysis to inform policy, intersectoral work, and knowledge of how to build coalitions at national and local levels all depend on training, learning from experiences in other countries, access to accumulated evidence and best practices, the availability of expert advice, and rapid acceleration of international collaboration.

Capacity-building activities and knowledge transfer must be rapidly expanded with support from WHO and other UN entities and intergovernmental organizations through international initiatives at global and regional levels – including by strengthening the networks of country focal points and technical experts who can be available for capacity-building activities in other countries as well as inter-country exchanges and mentorships. There is a need to develop and maintain a global repository of practical and effective policy options for implementation and evaluation, as well as examples of effective prevention, treatment and harm reduction interventions linked to WHO's global and regional information systems in different cultural, economic and social contexts.

Knowledge exchanges between groups working on implementation of the Framework Convention on Tobacco Control, the UN drug treaties, and alcohol strategies and action plans can provide opportunities for better understanding of: 1) the relationship between supply and demand for psychoactive substances; 2) approaches taken on advocacy and the commercial and social determinants of substance use; and 3) good examples of the implementation of legally binding and non-binding global and regional instruments.

The relevant staff of public health authorities can be trained, as needed, in the development of effective legislation and policies, advocacy for change, policy monitoring and evaluation and multisectoral coordination and collaboration. Capacity-building should include the impact of the commercial determinants of health as well as strategies to protect the development of public health policies from the undue influence of commercial interests. Wide participation in the capacity-building and knowledge transfer activities of civil society organizations, professional associations and groups of persons with lived experience and affected by substance use can facilitate the development and implementation of effective policies and interventions adapted to different socioeconomic contexts.

4.6 Achievement of SDG health target 3.5 requires *active engagement and empowerment of civil society organizations, professional associations and people with lived experience* of substance use disorders and other health conditions due to substance use

A variety of global, regional and national civil society organizations can contribute to advocacy efforts to promote the effective public health strategies needed to achieve SDG health target 3.5 and to counter the undue influence of commercial interests on policy-making. Social movements against driving under the influence of psychoactive substances or alliances to support people affected by Fetal Alcohol Spectrum Disorders (FASD) have been instrumental in policy and programme developments in many countries. Self-help/mutual-aid organizations, such as Alcoholics Anonymous and Narcotics Anonymous, can work alongside treatment services to support recovery and understanding by family members. Harm reduction networks and community-based peer support groups have made significant contributions to the prevention of HIV and other infectious diseases among injecting drug users and other groups of people using drugs, as well as connecting people who use drugs with outreach health and social services. Professional associations have important roles in supporting the most effective public health policies, facilitating the implementation of prevention and treatment standards, educating the public and health professionals about the latest scientific information and evidence related to substance use and its impact on health conditions, and promoting the ethical treatment of people with SUD.

The involvement of service users in the development and formulation of treatment policies and plans is another prerequisite for ensuring appropriate responses to treatment needs. People with lived experience and their relatives are critical to the development and implementation of appropriate services; they are able to identify gaps in programmes and legislation, and can be advocates for needed policy changes. Their inclusion in planning can facilitate more integrated and responsive services. Certain population groups with specific needs may require special treatment and care provisions, and the planning and development of service systems should be based on good understanding of their needs.

4.7 A strong and comprehensive *multi-level monitoring system and corresponding research capacity and infrastructures* are needed to improve comparable data for tracking progress with SDG health target 3.5

SDG health target 3.5 relates to different psychoactive substances, health conditions and services for which scientific knowledge and accumulated evidence are at different stages of development. Although more countries have established national monitoring systems, the capacity to collect, collate and disseminate reliable information on alcohol consumption and treatment coverage for substance use disorders using common and scientifically sound methodological approaches is still limited, even in high-income countries. It is critically important to harmonize methodological approaches to, and production of, comparable data between countries and regions in accordance with global targets and indicators.

WHO's Global Information System on Alcohol and Health (GISAH) has been an essential tool and a comprehensive data repository for monitoring global and regional trends across the key indicators of alcohol consumption, alcohol-attributable harm and policy responses. Chapter 2 of this report is based on the data collected and produced by WHO. Harmonization of data received from and generated in different countries is a resource-consuming exercise that is complicated by differences in methodological approaches and measures used in countries and the different levels of global monitoring systems. One example is the variation in the definition of a “standard drink” that prompts a call for accepting the “international standard drink” (ISD) definition of 10 grams of pure alcohol for standardization of information on alcohol consumption across different types of alcoholic beverages. The global targets and indicators included in the Global alcohol action plan 2022–2030 provide a solid framework for international monitoring of progress in the reduction of alcohol-related harm worldwide.

As described in Chapter 3, there are substantial methodological challenges to the global monitoring of treatment coverage for substance use disorders, although significant progress has been made in this area by the efforts of UNODC and WHO (UNODC, 2023; WHO, 2018). For drug use disorders, progress against Indicator 3.5.1 on treatment coverage has become an integral part of the global monitoring system on the drug problem and is reflected in the *World Drug Report*, the UN’s annual flagship publication on drugs (UNODC, 2023). WHO activities on generating comparable data to inform progress on treatment coverage for alcohol and drug use disorders, as presented in Chapter 3, include work on a standardized index of service capacity for the treatment of substance use disorders.

National monitoring capacities, particularly in low- and middle-income countries, should be strengthened by supporting surveillance and monitoring activities and research, as well as by the development of appropriate infrastructures for monitoring – such as national monitoring centres. It is essential that data generated at national level can be easily used for international comparisons and monitoring. It is crucial to enhance coordination at country level in order to increase data-sharing between countries, support regional hubs for data collection and foster data-sharing between international organizations.

Effective monitoring of the progress achieved in attainment of SDG health target 3.5 requires further development of the multi-level monitoring system that includes global, regional and national efforts to monitor psychoactive substance use in populations, alcohol-and drug-attributable disease burdens, and policy and programme responses that include treatment coverage and service capacity for treatment of SUD. Such information is crucial for: 1) developing advocacy, policy and services; 2) strengthening the evidence base needed to change ineffective regulations and interventions; 3) increasing resource allocation and mobilization; 4) raising public awareness of the impact of substance use on the health of populations; and 5) supporting effective strategies and interventions.

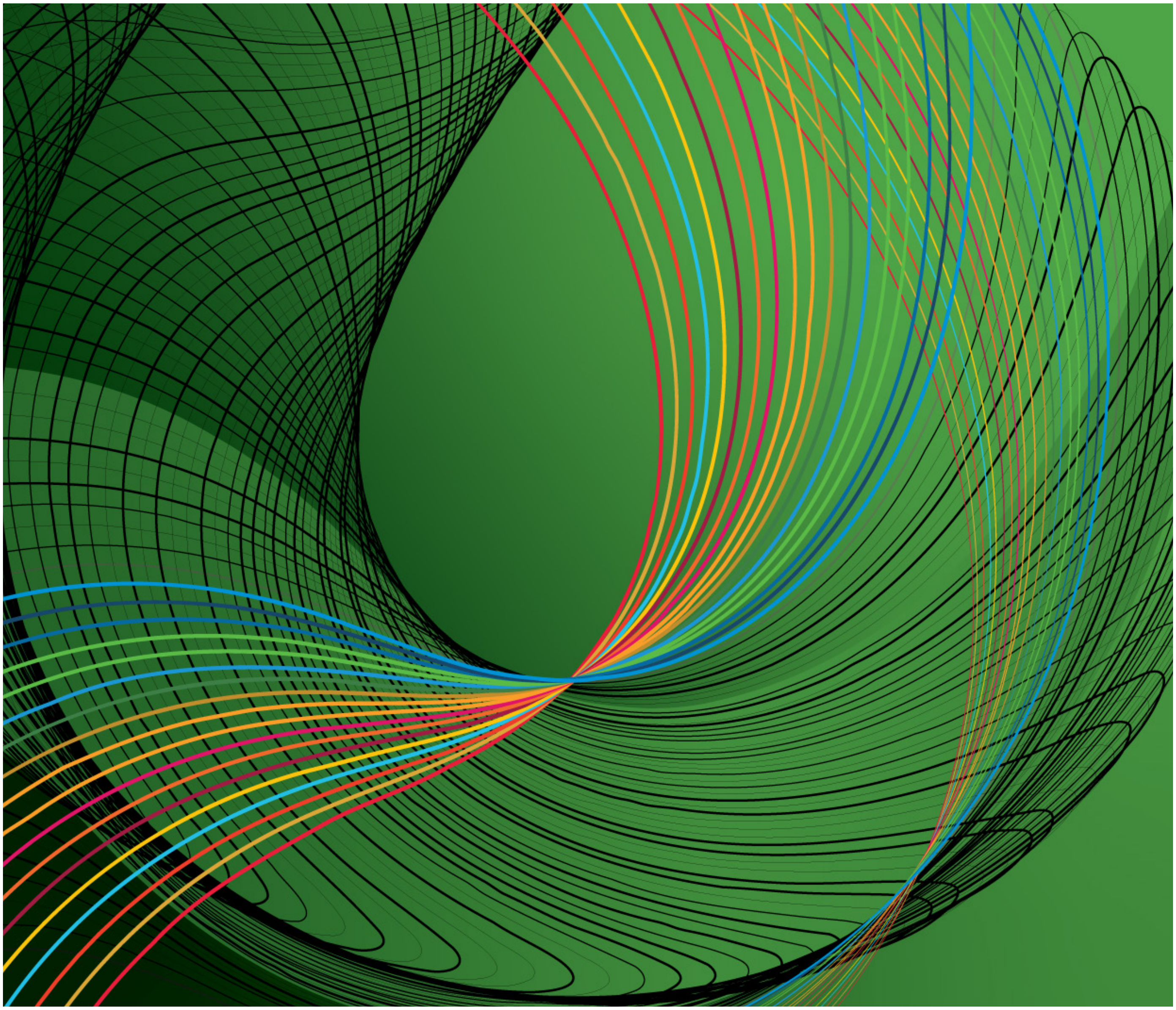
4.8 *Resource mobilization and allocation and innovative funding mechanisms should be scaled up* to support the development and implementation of public health policies and to strengthen the capacity of health and social systems to address substance use and SUD

Data collected by WHO from its Member States indicate that the lack of resources presents the most common and significant barrier for accelerating progress towards attainment of SDG health target 3.5 at global and national levels, particularly in low- and middle-income countries.

There is a need to mobilize and allocate additional financial resources for alcohol policy development and implementation as well as for strengthening public health responses to psychoactive drugs and developing the capacity of health and social systems to address psychoactive substance use and SUD. For psychoactive drugs it is sometimes a matter of finding the right balance between resources allocated for drug control and criminal justice system responses and resources allocated for public health strategies and interventions. It is also a question of prioritizing substance use and SUD on the public health and development agendas, and protecting such prioritization from undue influence of commercial interests. Integrated or linked models of service provision with shared funding mechanisms for the management of health conditions co-occurring with SUD may increase the available resources for strengthening the prevention and treatment responses of health systems.

The lack or insufficient level of resources shows the need to develop innovative funding mechanisms in order to meet the related targets of the SDG 2030 agenda. Countries have reported several innovative approaches to funding. These include using revenues from taxes on legally produced and distributed psychoactive substance to fund prevention initiatives and treatment programmes and, in some cases, to support international activities in these areas. Other examples include financial resources from the funds generated by state-owned retail monopolies, or from a levy on profits across the value chain for production and distribution of licit psychoactive substances. Additional funding can be generated by taxing the advertising of psychoactive substances where allowed under national legislation or by imposing earmarked fines for noncompliance with regulations on the production, distribution and marketing of psychoactive substances. Academic discussions have considered a global tax on alcohol or other psychoactive substances that are legally produced and distributed for non-medical use – such as cannabis-based products in some jurisdictions. The funds generated could be governed internationally and used to accelerate progress towards attainment of SDG health target 3.5 worldwide.

As this report shows, there is ample evidence and knowledge of the impact of alcohol and drug use on health and development. Effective ways to minimize the harms caused by alcohol and drug use are well documented, including alcohol and drug control policies and treatment for substance use disorders (SUD). The international community has united in commitment to strengthen prevention and treatment of SUD and other health conditions due to substance use, as reflected in the 2030 Agenda for Sustainable Development. Commitment must now lead to rigorous implementation of the Global alcohol action plan 2022–2030, with increased advocacy leading to reduced alcohol consumption, stronger prevention and treatment capacity of health and social care systems and accelerated training of health professionals. Expanded capacity-building and international knowledge transfer are needed, as are empowered civil society organizations and professional associations as well as persons with lived experience of health conditions due to substance use. Future actions depend on strengthened monitoring and research and greater resources. With the actions described in this report and with concerted efforts to achieve SDG health target 3.5, we set our sights on longer and healthier lives for people throughout the world, and greater chances of success in meeting not only the SDG health target 3.5 but all of the Sustainable Development Goals.



Annexes

ANNEX 1
Data sources and methods

A1.1 Data collection: WHO Global Survey on Progress with SDG Health Target 3.5

The survey was designed and implemented to collect information from WHO Member States in 2019 on progress achieved in the implementation of Sustainable Development Goal (SDG) health target 3.5 which, as explained in Chapter 1, has two indicators: one on alcohol consumption and one on treatment coverage for substance use disorders (SUDs). Accordingly, the data collection tool used in this survey had two major components: one on alcohol and health and another one on treatment for SUDs. The data collection tool was developed by the Alcohol, Drugs and Addictive Behaviours unit of WHO's Department of Mental Health and Substance Use in collaboration with all six of WHO's regional offices[1] and the WHO Technical Advisory Group on Alcohol and Drug Epidemiology. The first component of the data collection tool presented a further development of the WHO data collection tools used in the framework of WHO's global surveys on alcohol and health implemented in 2012 and 2016. The data collected from countries with that part of the data collection tool formed the data basis for Chapter 2 of the current report. The second component of the data collection tool was a new questionnaire developed specifically to collect information on treatment responses to SUDs; its development took into consideration previous experiences of data collection by WHO in 2010 and 2014 on resources for the prevention and treatment of SUDs. This included an analysis of data collected in previous years (2010 and 2014) to identify and revise questions with low response rates, delete questions not directly related to the treatment of SUDs (e.g. questions on primary prevention of substance use outside health system), and add new questions important for service provision (e.g. details on access to essential medicines). The data collected with the second component of the data collection tool formed the data basis for Chapter 3 of the current report.

National counterparts or focal points in WHO Member States in each region, officially nominated by the respective ministries of health, were enabled to complete the survey data collection tool online. Where this was not feasible, a hard copy of the tool was forwarded directly to those who requested it. The original English version of the data collection tool was translated into French, Russian and Spanish. After piloting the questionnaire between May and June 2019 in three countries, the WHO Global Survey on Progress with SDG Health Target 3.5 was conducted between June 2019 and July 2020 by the WHO Department of Mental Health and Substance Use in collaboration with WHO regional and country offices. The WHO's LimeSurvey platform was used to collect information, with an option to submit a Microsoft Word version based on individual requests. Respondents were encouraged to contact and consult additional experts from the following areas: 1) persons in charge of or involved in alcohol/drug control in the Ministry of Health, Ministry of Justice or other ministry, or the most senior government official in charge of alcohol control or alcohol-related conditions, or drug demand reduction programmes; 2) the head of a prominent nongovernmental organization dedicated to alcohol/drug control; 3) a health professional (e.g. medical doctor, nurse, pharmacist, social worker, psychologist) who specialized in alcohol-related conditions and conditions due to other substance use; 4) a faculty member of a public health or other relevant university department; 5) a police or other law enforcement officer; 6) a person at the Ministry of Finance, tax agency or statistical office; and 7) a researcher, civil servant, or faculty member with expertise in treatment systems for SUDs and treatment/service coverage.

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[1] WHO Regional Offices for Africa, the Americas, Europe, the Eastern Mediterranean, South-East Asia, and the Western Pacific.

Overall, 154 (79.4%) out of 194 WHO Member States provided a response to the survey (Table A1.1.1). After the data collection, rigorous data quality control was implemented by reviewing all the responses provided and ensuring that the inherent rules of the data collection tool were thoroughly followed. Errors, inconsistencies and ambiguities were identified and subsequently resolved in consultation with WHO staff in the regional and country offices and focal points in countries. Whenever information was incomplete or in need of clarification, the questionnaire was returned to the focal point or national counterpart in the country concerned for revision. Amendments to the survey responses were then resubmitted by email or electronically. Moreover, the level of data missingness was assessed for each country and, when data missingness was considered to be high, opportunities were provided for the focal points in respective countries to resubmit their completed questionnaires.

Table A1.1.1 Coverage of data submissions to the WHO Global Survey on Progress with SDG Health Target 3.5

WHO Region	Countries with survey data/ total number of countries	Response rate (%)	Population covered (%)
Africa	31/47	66.0%	84.7%
Americas	32/35	91.4%	95.9%
Eastern Mediterranean	17/21	81.0%	94.1%
Europe	49/53	92.5%	95.6%
South-East Asia	8/11	72.7%	98.6%
Western Pacific	17/27	63.0%	99.9%
Global	**154/194**	**79.4**	**95.8%**

The country profiles were constructed with inclusion of country-level data for the key indicators, and the country profiles were presented to countries at the regional WHO meetings organized during 2020–2022. Based on the feedback received, any errors and inconsistencies were corrected. Many data tables and graphs in this report are aggregated according to WHO regions. For a full list of WHO Member States included in this report by WHO region, see Table A1.5.1 in Annex 1.5.

Data from the United Nations Population Division and the World Bank have been used to present information by WHO region, gender and income level groups throughout this report. The population data in this report refer to the total adult (15 years of age or older, or 15+) population with data for males and females shown separately whenever available. Hence, in the tables and figures presenting results by WHO regions and the world, data are weighted for the population size of the countries in these regions.

WHO Member States' populations of more than 30 000 are allocated to World Bank income groups according to 2019 national income (GNI) per capita: high income (US$ 12 056 or more), upper-middle income (US$ 3896 to US$ 12 055), lower-middle income (US$ 996 to US$ 3895) and low income (US$ 995 or less). For a full list of WHO Member States included in this report by World Bank income group, see Table A1.5.2 in Annex 1.5. Countries with a total ban on alcoholic beverages are presented in Table A1.5.3.

A1.2 Data sources and methods used for Chapter 2

Section 2.1 Global status and trends in alcohol consumption (SDG 3.5.2 indicator)

This section of the report utilizes two main sources of data, namely: 1) the Global Survey 2019 on Progress on SDG health target 3.5; and 2) published surveys. A brief description of indicators related to alcohol consumption, the methodology of their estimation and data sources is provided in Table A1.2.1.

Several sources were utilized to provide data on alcohol consumption; priority was given to official data on recorded alcohol per capita (15+ years) consumption (APC) supplied by the respective WHO Member States. If these data were not available, data from economic operators[2] were used. When these data were not consistently available, data supplied by the Food and Agriculture Organization of the United Nations' (FAO) statistical database (FAOSTAT) were used. Sources of data on alcohol consumption in WHO Member States are presented in Table A1.2.2.

When data were not available for 2000 to 2019 for recorded APC, data were projected using a last value carried forward imputation. Data for the years 2000 to 2019 were averaged on a three-year basis and used as an estimate of recorded APC consumption. For 2001 to 2018, a simple central three-year moving average was utilized. For 2000, a simple trailing three-year moving average was utilized based on values for 2000 to 2002. For 2019, the three-year average was based on values for 2017, 2018 and 2019. The total per capita consumption of alcohol in 2020 was calculated from a single year of recorded, unrecorded and tourist per capita consumption. For recorded APC, if data did not already exist for 2020, the data were imputed on the basis of: 1) country- and beverage-specific recorded data; 2) country-specific recorded data; 3) regional- and beverage-specific recorded data; and 4) regional-specific recorded data.

Unrecorded alcohol consumption was estimated as a percentage of total alcohol consumption. Country-level proportions of unrecorded alcohol consumption were estimated using a regression analysis. Estimates of unrecorded alcohol consumption were obtained from four sources: 1) judgements from a WHO survey of experts based on whether any changes in unrecorded consumption had occurred since 2010 (i.e. since the WHO's *Global Status Report on Alcohol and Health 2014*), the magnitude of these changes, and documented supporting evidence; 2) a WHO and Centre for Addiction and Mental Health (CAMH) nominal expert group Delphi survey in 2013 assessing the proportion of unrecorded alcohol consumption in 46 WHO Member States (response rate: 74%) where unrecorded alcohol consumption was relatively large (Rehm & Poznyak, 2015, Rehm et al., 2014); 3) a second WHO and CAMH nominal expert group Delphi survey in 2015 and 2016 in 49 WHO Member States (response rate: 86%; (Probst et al., 2018); and 4) WHO's STEPwise approach to surveillance (STEPS) surveys. On the basis of these input data, the percentage of unrecorded to total consumption was estimated via a regression model.

Data for tourist estimations were obtained from the Institute for Health Metrics and Evaluation (IHME) which based its calculations on data from the United Nations World Tourism Organization (UNWTO) (United Nations World Tourism Organization, 2022; www.healthdata.org). The litres of alcohol consumed by tourists in a country were based on the number of tourists who visited a country, the average amount of time they spent in the country, and how much these people drink on average in their countries of origin (estimated on the basis of per capita consumption of recorded and unrecorded alcohol). Furthermore, tourist alcohol consumption also accounted for the inhabitants of a country consuming alcohol while visiting other countries (based on the average time spent outside of their country and the amount of alcohol consumed in their country of origin). These estimations assumed the following: 1) that people drink the same amount of alcohol when they are tourists as they do in their home countries; and 2) that global tourist consumption is equal to 0 (and thus tourist consumption can be either net negative or positive) (Griswold et al., 2018).

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[2] These were: GlobalData; International Wine and Spirits Research (IWSR); Organisation Internationale de la Vigne et du Vin (OIV); The Wine Institute.

Total per capita alcohol consumption was then estimated by adding recorded and unrecorded alcohol consumption and adjusting for tourist alcohol consumption.

The main sources of data on alcohol drinking status and heavy episodic drinking (HED) were published survey reports or multi-country, nationally representative surveys, including but not limited to the STEPS surveys and Gender, Alcohol and Culture: an international study (International GENACIS Project).[3] The main sources of data on young persons (15-19 years of age) were the Global School-based Student Health Survey (GSHS)[4] and the European School Survey Project on Alcohol and Other Drugs (ESPAD) report 2015 (ESPAD, 2015).

Data on drinking status (lifetime abstainers, former drinkers and past 12 months abstainers) were modelled by age, sex, country and year using a Dirichlet regression model. The prevalences of HED were modelled using a fractional response regression model. These regression models used data collected through a systematic search of all survey data on the previously mentioned measures of interest. The independent variables were per capita consumption, population structure (sex, age), the size of the Muslim population within the country, the region of the country, economic wealth (GDP-PPP), and the year from which the survey data were obtained. Model-specific covariates were added to account for variations in the outcomes, including reference periods for the assessment of the drinking status (e.g. 30 days or 12 months) and the consumption thresholds for HED (i.e. 60 g of pure alcohol on one drinking occasion). The validity of the predicted estimates was assessed by comparing predicted estimates to actual estimates.

When interpreting data, it is important to note that the data are only as reliable as the original source data. This is illustrated by the fact that consumer surveys assessing people's self-reported alcohol consumption usually show overall consumption figures which are much lower, quite often around 40-60% of supply-based estimates (i.e. data on the production and trade of alcohol). This would indicate that people underestimate their own consumption and/or that these surveys do not reach the people with the highest consumption. Sales data, on the other hand, do not allow for the disaggregation of recorded alcohol consumption by sex and age. To this end, other data sources, such as survey data for measures of abstention, are needed.

For this reason, as input for the burden calculations, survey estimates were triangulated with APC to adjust for underestimation by surveys that often account for less than one-half of the actual amount of alcohol consumed (for reasoning, see (Rehm et al., 2007); for procedures used, see (Rehm et al., 2010b, Kehoe et al., 2012)). A value of 80% of APC was used to be conservative, to account for spillage/waste and to account for possible underestimation in epidemiological studies of risk relations (Stockwell et al., 2018).

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[3] See: http://www.genacis.org/ (accessed 16 January 2024).

[4] See: https://www.who.int/teams/noncommunicable-diseases/surveillance/systems-tools/global-school-based-student-health-survey/questionnaire (accessed 16 March 2024).

Projections of total alcohol consumption data for 2021 to 2030 were derived assuming total APC in 2025 would be equal to total APC in 2019. This assumption was based on a report from International Wine and Spirit Research which, based on expert opinion of industry experts, estimated that the sales of alcohol will recover after the COVID-19 pandemic in 2023 (IWSR, 2023); however, this recovery is based on total volume sales of alcohol and not the per capita volume of sales. Per capita alcohol sales (in volume) are expected to recover fully after 2023 (by 2025 if accounting for population growth). Data for projections of alcohol use from 2026 to 2030 were based on a counterfactual scenario which estimated total APC for 2020 to 2024 under the assumption that the COVID-19 pandemic did not occur (this counterfactual scenario was estimated using an ARIMA forecast model based on APC data from 2000 to 2019).

The estimates of prevalences of alcohol consumption and HED result from mathematical modelling using the survey data available at the time of updating the WHO estimates and preparing this report. All efforts were made to check the methodological quality of the surveys which were conducted in various parts of the world, but it was not feasible to verify systematically or confirm (a) whether all surveys were reviewed, as appropriate, by relevant ethics review committees, (b) whether all survey results were published in peer-reviewed journals, or (c) how all surveys were funded, including the sources of funding.

With respect to the estimates of the prevalences of alcohol consumption and HED in the Americas, the estimates were produced by mathematic modelling based on the survey data available from the region, and the model input data included results of studies conducted by FLACSO (Facultad Latino Americana de Ciencias Sociales) in Costa Rica, Dominican Republic, El Salvador, Honduras, Nicaragua, Panama, Peru and Venezuela. In this regard, WHO has learned that these studies were conducted using funds received from the alcohol industry and that the studies conducted in Costa Rica, Honduras, Nicaragua, Peru and Venezuela were not reviewed by relevant ethics review committees. This, in turn, has led to concerns being expressed about the validity and interpretation of data generated in the FLACSO studies. Notwithstanding the foregoing, it should be noted that the WHO estimates of the prevalences of alcohol consumption and HED in the Americas are based on the results of mathematical modelling with input data from multiple sources, including studies in the above-listed countries that were not conducted by FLACSO.

Table A1.2.1 Brief description of the methodology and data sources for indicators related to alcohol

Indicator	Methodology	Data sources (in order of priority)
Section 1 • Levels of consumption		
Total APC (3-year average)	The recorded three-year average APC, the unrecorded three-year average APC and tourist three-year average APC were added to arrive at the total consumption in litres of pure alcohol.	See recorded APC, unrecorded APC and tourist consumption.
Recorded APC (3-year average)	Using the recorded APC data, three-year averages were computed for each country. For 2001 to 2018, a centred moving average was used, (e.g. 2014, 2015, 2016 for 2015). For 2000, data from 2000, 2001 and 2002 were used to compute three–year averages, and for 2019 data from 2017, 2018 and 2019 were used to compute three-year averages. When data were not available in litres of pure alcohol (but litres of beverage), recorded alcohol was computed using the following alcohol concentrations: beer 5%, wine 12%, spirits 40%, other alcoholic beverages 5%. To arrive at the consumption per capita, the United Nations Population Estimates were used.	Government sources, statistics from economic operators, and FAOSTAT data. Five countries (out of 194) had no data (Marshall Islands, Monaco, Palau, San Marino and South Sudan). Recorded APC is the sum of the different alcoholic beverage types, i.e. beer, wine, spirits and other alcoholic beverages. The "other alcoholic beverages" category consists of such types as fortified wine, fermented beverages, sorghum, maize, and ready–to–drink alcoholic beverages.
Unrecorded APC (3-year average)	Unrecorded alcohol consumption was estimated as a percentage of total alcohol consumption. Country-level proportions of unrecorded alcohol consumption were estimated using a regression analysis. Estimates of unrecorded alcohol consumption were obtained from four sources: judgements from a WHO survey of experts; a WHO and CAMH nominal expert group Delphi survey assessing the proportion of unrecorded alcohol consumption in 34 WHO Member States where unrecorded APC was relatively large (Probst et al., 2018); a second WHO and CAMH nominal expert group Delphi survey of 129 experts from 42 WHO Member States; and the STEPwise approach to surveillance (STEPS) surveys (Probst et al., 2018).	Unrecorded consumption was available for 189 countries.
Tourist consumption (3-year average)	The estimates are linked to APC and are based on the following assumptions: 1) that people drink the same amounts of alcohol when they are tourists as they do in their home countries; and 2) that global tourist consumption is equal to 0 (and thus tourist consumption can be either net negative or positive).	Data for these estimations were obtained from the Institute for Health Metrics and Evaluation (IHME) which based its calculations on data from the United Nations World Tourism Organization (UNWTO). The litres of alcohol consumed by tourists (15 years of age and older) in a country were based on the number of tourists who visited a country, the average amount of time they spent in the country, and how much these people drink on average in their countries of origin. Furthermore, tourist alcohol consumption also accounted for the inhabitants of a country (15+ years) consuming alcohol while visiting other countries (based on the average time spent outside of their country and the amount of alcohol consumed in their country of origin).
Consumption by type of alcoholic beverage	APC in litres of pure alcohol for beer, wine, spirits and other alcoholic beverages were calculated separately as a percentage of the recorded APC.	Government sources, statistics from economic operators, and FAOSTAT data. Of these, 10 countries had almost zero consumption and five countries had no data.
Section 2 • Patterns of consumption		
Prevalence of abstention	Lifetime abstainers are those persons who have never consumed alcohol. Former drinkers are those persons who had previously consumed alcohol but who had not done so in the previous 12-month period. Abstainers (past 12 months) are those persons who have not consumed one or more alcoholic drinks in the past 12–month period. Current drinkers are those who consumed alcohol in the previous 12 months (i.e. 100 minus past–year abstainers). Abstainers were estimated using regression analyses. The regression models included information on alcohol consumption, namely per capita (15+ years) consumption, country-, age- and sex-specific population size, gross domestic product adjusted for purchasing power parity (GDP–PPP), Global Burden of Disease (GBD) region, and a list of Muslim-majority countries where alcohol consumption is prohibited.	Data were collected via published survey reports or by direct access to multicountry, nationally representative surveys, including WHO's STEPwise approach to surveillance and Gender, Alcohol and Culture: an international study (http://www.genacis.org). Covariate data were obtained from the IHME, WHO and the World Bank.

Table A1.2.1 *continued*

Indicator	Methodology	Data sources (in order of priority)
Heavy episodic drinking (HED)	Heavy episodic drinking is defined as having consumed 60 g or more of pure alcohol on at least one occasion in the past 30 days. Heavy episodic drinking was estimated using regression analyses. These regression analyses included as influencing factors data on per capita alcohol consumption: country-, age- and sex-specific population size, gross domestic product adjusted for purchasing power parity (GDP–PPP), Global Burden of Disease (GBD) region, and a list of Muslim-majority countries where alcohol consumption is prohibited. Estimates are provided for the population and for drinkers only for males, females and both sexes. Data are presented for persons aged 15–19 years for both population and drinkers only.	Data were collected via published survey reports or by direct access to multicountry, nationally representative surveys, including the STEPwise approach to surveillance and Gender, Alcohol and Culture: an international study (http://www.genacis.org). Covariate data were obtained from the IHME, WHO and the World Bank.
Drinking among drinkers	Litres of pure alcohol (recorded, unrecorded, and tourist) consumed only by those 15 years of age and older were obtained by calculating the total population of male and female drinkers using the abstainer data (see above) and applying the proportion to the total litres (3-year average) of pure alcohol consumed.	Total APC and abstainer data for each country (see above).
Section 3 • Projections		
Projections of total alcohol per capita (15+ years) consumption	Projections for total alcohol consumption data for 2021 to 2025 were derived assuming that the APC for 2019 and 2025 would be the same (i.e. alcohol production would fully recover by 2025). From 2026 to 2030, projections were based on an ARIMA regression analyses.	See total APC above.

Notes: APC = alcohol per capita consumption; IHME = Institute for Health Metrics and Evaluation; FAOSTAT = Food and Agriculture Organization of the United Nations' (FAO) statistical database.

Table A1.2.2 Sources of alcohol per capita consumption (APC) data by WHO Member State

Country	Data source recorded
Afghanistan	1961–1999: FAO
	2000–2010: merged (FAO, OIV)
	2010–2020: merged (FAO, OIV, IWSR)
Albania	1962–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Algeria	1961–1999: WDT
	2000–2020: merged (FAO, GlobalData, OIV)
Andorra	2000–2020: Average of France and Spain
Angola	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Antigua and Barbuda	1962–1999: FAO
	2000–2020: merged (FAO, GlobalData, IWSR, OIV)
Argentina	1961–1979: FAO
	1980–1999: WDT
	2000–2010: WHO Global Surveys on Alcohol and Health
	2011–2020: Instituto Nacional de Estadistica y Censos Republica Argentina [National Institute of Statistics and Census of Argentina]
Armenia	1990–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Australia	1961–1989: World Drink Trends (WDT)
	1990–1999: National Drug Research Institute
	2000–2019: Australian Bureau of Statistics
Austria	1960–1962: FAO
	1963–1999: WDT
	2000–2017: Handbook on Alcohol (Anton Proksch Institute)
	2019: WHO Global Survey on Alcohol and Health
Azerbaijan	1990–1999: FAO
	2000–2008: merged (GlobalData, IWSR, OIV)
	2009–2020: Statistical Yearbook
Bahamas	1961–1999: FAO
	2000–2018: merged (GlobalData, IWSR)
Bahrain	1970–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Bangladesh	1961–1999: FAO
	2000–2019: merged (FAO, OIV)
Barbados	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Belarus	1980–1999: FAO
	2000–2004: WHO GSAH
	2005–2020: Yearbook of Statistics
Belgium	1963–1999: WDT
	2000–2007: FAO
	2008–2020: merged (Belgium Tax Administration Department, WHO GSAH)

Table A1.2.2 *continued*

Country	Data source recorded
Belize	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Benin	1961–1999: FAO
	2000–2020: merged (FAO [2018 to 2020 missing]* **, GlobalData, Wine Institute)
Bhutan	1961–1999: FAO
	2000–2017: merged (FAO [2018 to 2020 missing] * **, WI [2019 and 2020 missing] * **)
Bolivia	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Bosnia and Herzegovina	1987–1999 FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Botswana	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, IWSR)
Brazil	1963–1999: WDT
	2000–2019: merged (GlobalData, IWSR, OIV)
Brunei Darussalam	1961–1999: FAO
	2000–2017: merged (FAO [2015 to 2020 missing] * **, OIV)
Bulgaria	1963–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Burkina Faso	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, OIV)
Burundi	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, OIV)
Cabo Verde	1961–1999: FAO
	2000–2017: merged (FAO [2020 missing] **, WI)
Cambodia	1961–1999: FAO
	2000–2018: merged (GlobalData, IWSR)
Cameroon	1961–1999: FAO
	2000–2020: merged (FAO, GlobalData, OIV)
Canada	1961–1992: WDT
	1993–2020: Statistics Canada
Central African Republic	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, OIV)
Chad	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, OIV)
Chile	1961–1999: WDT
	2000–2020: WHO GSAH
	2016–2019: merged (GlobalData, WHO GSAH)
China	1961–1984: FAO
	1985–1999: WDT
	2000–2020: National Bureau of Statistics– Trade data
Colombia	1961–1962: FAO
	1963–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)

Table A1.2.2 *continued*

Country	Data source recorded
Comoros	1961–2000: FAO
	2001–2017: merged (FAO [2020 missing] **, OIV)
Congo	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Cook Islands	2000–2015: merged (FAO [2014 missing] *, WI)
Costa Rica	1961–1999: FAO
	2000–2020: Instituto sobre Alcoholismo y Farmacodependencia
Côte d'Ivoire	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, GlobalData, IWSR, OIV)
Croatia	1987–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Cuba	1961–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Cyprus	1961–1999: WDT
	2000–2015: Statistics Cyprus
Czechia	1993–1999: WDT
	2000–2018: Czech Statistical Office
Democratic People's Republic of Korea	1961–2019: FAO
Democratic Republic of the Congo	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Denmark	1961–1989: WDT
	1990–2020: Statistics Denmark
Djibouti	1961–1999: FAO
	2000–2020: IWSR, OIV
Dominica	1990–1999: FAO
	2000–2020: merged (FAO [2020 missing] **, IWSR, WI [2016 to 2020 missing] * **)
Dominican Republic	1961–1999: FAO
	2000–2018: merged (GlobalData, IWSR, OIV)
Ecuador	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Egypt	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
El Salvador	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Equatorial Guinea	1983–1999: FAO
	2000–2018: merged (GlobalData, IWSR [2000 to 2004 missing]*)
Eritrea	1961–1999: FAO
	2000–2020: merged (FAO [2014 to 2020 missing]* **, GlobalData)
Estonia	1990–1999: WDT
	2000–2020: Estonian Institute of Economic Research
Eswatini	1990–1999: FAO
	2000–2017: merged (FAO [2020 missing] **, GlobalData, OIV)
Ethiopia	1961–1999: FAO
	2000–2018: merged (FAO [2020 missing]**, GlobalData, IWSR [2000 to 2006 missing]*, OIV)

Table A1.2.2 *continued*

Country	Data source recorded
Fiji	1961–1999: FAO
	2000–2017: merged (FAO [2020 missing]**, GlobalData, WI)
Finland	1961–1989: National Research and Development Centre for Welfare and Health (STAKES)
	1990–2020: Statistics Finland
France	1961–1999: WDT
	2000–2020: INSEE [National Institute of Statistics and Economic Studies]/Observatoire Français des drogues et des toxicomanies [French Monitoring Centre for Drugs and Drug Addiction]
Gabon	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Gambia	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, WI)
Georgia	1990–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Germany	1961–1990: WDT
	1991–1999: German Statistical Office (DeStatis)
	2000–2004: WHO GSAH
	2005–2010: Statistics Germany (DeStatis)
	2011–2020: Federal Office for Information Security (BSI)
Ghana	1961–1999: FAO
	2000–2018: merged (FAO [2020 missing]**, GlobalData, IWSR, WI)
Greece	1961–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Grenada	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Guatemala	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Guinea	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Guinea–Bissau	1961–1999: FAO
	2000–2020: merged (FAO[2020 missing]**, OIV)
Guyana	1961–1989: FAO
	1990–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Haiti	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Honduras	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Hungary	1961–1999: WDT
	2000–2004: WHO GSAH
	2005–2019: Hungarian Central Statistical Office
Iceland	1961–1999: WDT
	2000–2020: Statistics Iceland
India	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)

Table A1.2.2 *continued*

Country	Data source recorded
Indonesia	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Iran (Islamic Republic of)	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, IWSR)
Iraq	1961–1999: FAO
	2000–2020: merged (FAO, IWSR, OIV)
Ireland	1961–1999: WDT
	2000–2020: Irish Revenue Commissioners Reports
Israel	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Italy	1961–1999: WDT
	2000–2004: AssoBirra Annual Report
	2005–2014: WHO GSAH
	2015–2020: AssoBirra Annual report
Jamaica	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Japan	1961–1988: World Drink Trends (WDT)
	1989–2019: National Tax Agency of Japan
Jordan	1961–1999: FAO
	2000–2018: merged (GlobalData, IWSR, OIV)
Kazakhstan	1988–1999: FAO
	2000–2006: merged (GlobalData, IWSR, OIV)
	2007–2020: Statistical Yearbook
Kenya	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR)
Kiribati	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, WI)
Kuwait	1961–1999: FAO
	2000–2020: Alcohol prohibition
Kyrgyzstan	1985–1999: FAO
	2000–2020: National Statistic Committee of the Kyrgyz Republic
Lao People's Democratic Republic	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR)
Latvia	1980–1999: WDT
	2000–2020: Slimību profilakses un kontroles centrs
Lebanon	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Lesotho	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Liberia	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Libya	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, OIV)

Table A1.2.2 *continued*

Country	Data source recorded
Lithuania	1984–1999: FAO 2000–2004: WHO GSAH 2005–2020: Statistics Lithuania
Luxembourg	1961–1999: FAO 2000–2020: Average of France and Germany consumption
Madagascar	1961–1999: FAO 2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Malawi	1961–1999: FAO 2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Malaysia	1961–1979: FAO 1980–1999: WDT 2000–2020: merged (GlobalData, IWSR, OIV)
Maldives	1961–1999: FAO 2000–2017: merged (FAO, Wine Institute)
Mali	1961–1999: FAO 2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Malta	1961–1987: FAO 1988–1999: WDT 2000–2020: merged (GlobalData, IWSR, OIV)
Marshall Islands	No data
Mauritania	1961–2000: FAO 2001–2020: Alcohol prohibition
Mauritius	1961–1999: FAO 2000–2018: merged (FAO, GlobalData, IWSR [2000 to 2004 missing]*)
Mexico	1961–1989: WDT 1990–1999: Consultores Internacionales, S.C. [International Consultants, S.C.] 2000–2006: merged (GlobalData, IWSR, OIV) 2007–2020: National Institute of Statistics and Geography
Micronesia (Federated States of)	1961–1999: FAO 2000–2009: merged (FAO, WHO GSAH) 2010–2015: WHO GSAH
Monaco	No data
Mongolia	1961–1999: FAO 2000–2020: National Statistical Office of Mongolia
Montenegro	2006–2018: Merged (GlobalData, IWSR, OIV, Statistical Yearbook)
Morocco	1961–1999: WDT 2000–2020: merged (FAO, GlobalData, IWSR, OIV)
Mozambique	1961–1999: FAO 2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR , OIV)
Myanmar	1961–1999: FAO 2000–2020: merged (GlobalData, IWSR, OIV)
Namibia	1961–1999: FAO 2000–2020: merged (FAO, GlobalData, IWSR)
Nauru	2000–2013: FAO

Table A1.2.2 *continued*

Country	Data source recorded
Nepal	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Netherlands (Kingdom of the)	1961–1999: WDT
	2000–2020: STAP–Dutch Institute for Alcohol Policy
New Zealand	1963–1996: WDT
	1997–2020: Statistics New Zealand
Nicaragua	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Niger	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Nigeria	1961–1999: FAO
	2000–2020: merged (FAO, GlobalData, IWSR [2000 to 2004 missing]*, OIV)
Niue	1990–1999: FAO
	2000–2017: merged (FAO [2014 to 2017 missing]*, Wine Institute)
North Macedonia	1992–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Norway	1961–1966: WDT
	1967–1980: Norwegian Institute for Alcohol and Drug Research (SIRUS)
	1981–1999: Statistics Norway
	2000–2004 WHO GSAH
	2005–2020: Statistics Norway
Oman	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, Wine Institute [2018 to 2020 missing]* **)
Pakistan	1961–1999: FAO
	2000–2012: merged (FAO, GlobalData, IWSR)
	2013–2018: merged (FAO [2020 missing]**, GlobalData, IWSR, OIV)
Palau	No data
Panama	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Papua New Guinea	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Paraguay	1961–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Peru	1961–1999: WDT
	2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR, OIV)
Philippines	1961–1999: FAO
	2000–2018: merged (GlobalData, IWSR, OIV)
Poland	1961–1999: WDT
	2000–2004: WHO GSAH
	2005–2020: Statistics Poland
Portugal	1963–1999: WDT
	2000–2016: Statistics Portugal
Qatar	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)

Table A1.2.2 *continued*

Country	Data source recorded
Republic of Korea	1961–1999: FAO
	2000–2020: WHO GSAH
Republic of Moldova	1992–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV, Statistical Yearbook of the Republic of Moldova [2020 missing]**)
Romania	1963–1999: WDT
	2000–2019: National Institute of Statistics
Russian Federation	1963–1999: WDT
	2000–2020: Russian Statistical Office (ROSSTAT)
Rwanda	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Saint Kitts and Nevis	1990–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Saint Lucia	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Saint Vincent and the Grenadines	1990–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Samoa	1961–1999: FAO
	2000–2017: merged (FAO [2020 missing]**, GlobalData, Wine Institute)
San Marino	No data
Sao Tome and Principe	1961–2000: FAO
	2001–2017: merged (FAO [2020 missing]**, Wine Institute)
Saudi Arabia	1961–1999: FAO
	2000–2020: Alcohol prohibition
Senegal	1961–1999: FAO
	2000–2020: merged (FAO, GlobalData, IWSR)
Serbia	2006–2020: merged (GlobalData, IWSR, OIV)
Seychelles	1961–1999: FAO
	2000–2020: merged (FAO, GlobalData, IWSR)
Sierra Leone	1990–1999: FAO
	2000–2017: merged (FAO [2020 missing]**, GlobalData, Wine Institute)
Singapore	1961–1984: FAO
	1985–2002: WDT
	2003–2020: Singapore National Statistics
Slovakia	1961–1999: WDT
	2000–2020: Statistics Slovakia (SlovStat)
Slovenia	1981–1999: FAO
	2000–2005: WHO GSAH
	2006–2020: National Institute of Public Health
Solomon Islands	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, OIV)
Somalia	2000–2020: Alcohol prohibition
South Africa	1961–1999: WDT
	2000–2020: South African Wine Industry Information and Systems (SAWIS)

Table A1.2.2 *continued*

Country	Data source recorded
South Sudan	No data
Spain	1962–1999: WDT
	2000–2004: Agencia Tributaria [Spanish Tax Agency]
	2005–2009: WHO GSAH
	2010: merged (Spanish Tax Agency, WHO Global Survey on Alcohol and Health)
	2011–2014: merged (Spanish Tax Agency, Ministry of Agriculture, Fisheries and Food)
	2015–2020: Spanish Tax Agency
Sri Lanka	1961–1999: FAO
	2000–2011: merged (Excise Data, WHO Global Surveys on Alcohol and Health)
	2012–2017: Excise Data
Sudan	1961–2016: merged (FAO [2020 missing]**, OIV)
Suriname	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Sweden	1961–1999: WDT
	2000–2020: Central Association for Alcohol and Drug Information
Switzerland	1961–1999: WDT
	2000–2020: Federal Customs Administration
Syrian Arab Republic	1961–1999: FAO
	2000–2020: merged (IWSR, OIV)
Tajikistan	1992–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Thailand	1961–1984: FAO
	1985–1999: WDT
	2000–2007: merged (GlobalData, IWSR)
	2008–2013: WHO Global Surveys on Alcohol and Health
	2014–2020: Ministry of Public Health
Timor–Leste	1961–2006: FAO
	2007–2020: Merged (FAO [2020 missing]**, OIV)
Togo	1990–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR, OIV)
Tonga	1990–1999: FAO
	2000–2020: merged (FAO [2014 to 2020 missing]* **, GlobalData, WI)
Trinidad and Tobago	1961–1999: FAO
	2000–2020: merged (GlobalData, IWSR)
Tunisia	1961–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Türkiye	1961–1999: WDT
	2000–2004: merged (GlobalData, IWSR, OIV)
	2005–2020: Turkish Statistical Institute
Turkmenistan	1992–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Tuvalu	1990–2017: merged (FAO [2014 to 2017 missing]*, WI)
Uganda	1961–1999: FAO
	2000–2020: merged (FAO, GlobalData, IWSR)

Table A1.2.2 *continued*

Country	Data source recorded
Ukraine	1975, 1980–1990: WDT
	1991–1999: FAO
	2000–2018: merged (GloablData, IWSR, OIV, Statistics Ukraine)
United Arab Emirates	1972–1999: Food and Agriculture Organization of the UN (FAO)
	2000–2020: IWSR
United Kingdom of Britain and Northern Ireland	1961–1999: WDT
	2000–2020: Alcohol Bulletins (HM Revenue and Customs)
United Republic of Tanzania	1990–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, IWSR)
United States of America	1961–2020: National Institute on Alcohol Abuse and Alcoholism (NIAAA)
Uruguay	1961–1999: WDT
	2000–2020: merged (Direccion General Impositiva [General Tax Directorate], Instituto Nacional de Vitivinicultura [National Institute for Viticulture])
Uzbekistan	1992–1999: FAO
	2000–2020: merged (GlobalData, IWSR, OIV)
Vanuatu	1961–1999: FAO
	2000–2020: merged (FAO [2020 missing]**, GlobalData, WI)
Venezuela (Bolivarian Republic of)	1961–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Viet Nam	1961–1979: FAO
	1980–1999: WDT
	2000–2020: merged (GlobalData, IWSR, OIV)
Yemen	1961–2012: FAO
	2013–2017: merged (FAO [2020 missing]**, OIV)
Zambia	1990–1999: FAO
	2000–2017: merged (FAO[2020 missing]**, GlobalData, OIV)
Zimbabwe	1961–1999: FAO
	2000–2020: merged (WHO GSAH, Delta Corp., FAO [2020 missing]**, OIV)

* Missing data for 2000 to 2019 were imputed using a last value carried forward method.

** Missing data for 2020 were estimated using country data; if country data were not available, regional level data were used.

Note: DeStatis – Federal Statistics Office of Germany; FAO – Food and Agriculture Organization of the United Nations; GSAH – Global Survey on Alcohol and Health; IWSR (International Wine & Spirit Research) – IWSR Drinks Market Analysis Limited; OIV – International Organisation of Vine and Wine; WDT – World Drink Trends.

Section 2.2 Global status and trends in the health consequences of alcohol consumption

A brief description of indicators related to the health consequences of alcohol consumption, the methodology of their estimation and data sources is provided in Table A1.2.3. Mortality and morbidity data, deaths, years of life lost (YLL), years lived with disability (YLD) and disability-adjusted life years (DALYs) lost are sourced from the *WHO Global Health Estimates 2000–2019* (World Health Organization, 2020) and were obtained from the WHO's Global Health Observatory by cause, age, sex and year (2000, 2005, 2010, 2015 and 2019). To match age-standardization data, deaths, YLL, YLD and DALYs lost were aggregated into the following age groups: 0 to 4, 5 to 9, 10 to 14, 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 54, 55 to 59, 60 to 64, 65 to 69, 70 to 74, 75 to 79, 80 to 84, and 85 years of age and older. The causes of death which were extracted are presented in Table A1.2.4.

Estimation of mortality and morbidity from road injuries

Using Formula X1, estimates of road injury deaths due to alcohol consumption were stratified into those involving the driver and those involving others, based on the fractions of road injury deaths that involved drivers and that involved people other than the driver, as obtained from the WHO's road traffic deaths database. This method estimates the number of deaths (D) among drivers (d) using the fraction (F) of injury events in a country that occurred among drivers by sex (indexed by i) and age (indexed by p including people 15 years of age and older). The method of estimating the number of road injuries involving drivers assumed that all road injuries to drivers occurred among people aged 15 years or older (i.e. all road injuries occurring in people 0–14 years of age involved people other than the driver). For countries where data were not available, the fractions of injuries among drivers and among people other than the driver were imputed as the regional averages. To estimate the number of YLL, YLD and DALYs lost among drivers, the fraction of deaths among drivers compared to all road injury deaths (by age and sex) were used. All other road injury deaths, YLLs, YLDs and DALYs lost affected people other than the driver.

Formula X1

$$Dd_{p,i} = \frac{F_i \cdot F_p \cdot \sum_{p=1}^{pn} \sum_{i=1}^{in} D_{p,i}}{D_{p,i}}$$

Estimation of alcoholic cardiomyopathy mortality and morbidity

Deaths, YLL, YLD and DALYs lost due to alcoholic cardiomyopathy (ICD-10 code: I42.6) are not estimated specifically by WHO but are estimated by the IHME's annual statistics. With respect to WHO data, alcoholic cardiomyopathy is included in the larger category of cardiomyopathy, myocarditis and endocarditis mortality and morbidity (ICD-10 codes: I30–I33, I38, I40, I42). Accordingly, we applied the percentage of cardiomyopathy, myocarditis and endocarditis deaths that were due to alcoholic cardiomyopathy as reported by the IHME to WHO's Global Health estimates of mortality and morbidity from cardiomyopathy, myocarditis and endocarditis in order to estimate alcoholic cardiomyopathy deaths.

Mortality and morbidity attributable to alcohol consumption

The categories of mortality and morbidity included in the health burden estimates were based on the causal association of alcohol consumption with the occurrence of the diseases and injuries. The inclusion of diseases and the causal association of alcohol were assessed by WHO's Technical Advisory Group on Alcohol and Drug Epidemiology (see Table A1.2.4).

The number of deaths, YLL, YLD and DALYs lost attributable to alcohol consumption were estimated using a Levin-based population-attributable fraction (PAF) methodology (Levin, 1953). The association of alcohol and mortality is complex: alcohol has a protective effect (when compared to lifetime abstainers) on ischaemic heart disease, ischaemic stroke and diabetes for drinkers who consume low volumes of alcohol and do not binge drink (Guiraud et al., 2010; Leong et al., 2014; Roerecke & Rehm, 2010, Roerecke & Rehm, 2014b, Knott et al., 2015a). However, the overall protective effect of alcohol depends on the risks of diseases and injuries associated or not associated with alcohol (i.e. competing risks) (Shield et al., 2017). Therefore, in accordance with the methods of previous comparative risk assessment studies, the mortality and morbidity attributable to alcohol consumption were estimated using a counterfactual scenario (i.e. theoretical minimum risk) of lifetime abstention (i.e. no historical consumption of alcohol) (Ezzati et al., 2004). For diseases and injuries where alcohol is a necessary cause (i.e. alcohol use disorders (AUDs) (ICD-10 codes: F10, G72.1, Q86.0 and X45)), the attributable fraction was assumed to be 1. For diseases and injuries where alcohol is a potential component cause (i.e. where alcohol raises the risk of disease or injury occurrence but the disease or injury may still occur in the absence of alcohol), a PAF is used to estimate the fraction of deaths, YLL, YLD and DALYs lost attributable to alcohol.

Estimation of alcohol-attributable fractions

With respect to noncommunicable diseases (other than cancer), no latency period was used in the estimation of the attributable fractions. For cancer mortality and morbidity attributable to alcohol consumption, a latency period of 10 years between the consumption of alcohol and the diagnosis and/or death from cancer was chosen, based on an observed approximate latency period of 11–12 years for breast, colorectal, oral cavity, oesophageal (squamous cell carcinoma) and pharyngeal cancers, and 8–9 years for laryngeal and liver cancers (Grundy et al., 2016)).

Alcohol-attributable fractions (AAFs; i.e. the PAFs for alcohol) were estimated by combining data on the prevalence of former drinkers (P_{FD}) and current drinkers (P_{CD}) with the corresponding relative risks (RR) using Formula X2. Alcohol consumption among current drinkers (x) was modelled using an upper integration limit of 150 g of pure alcohol per day. The upper limit of 150 g per day was based on the observation that very heavy consumers of alcohol do not sustain alcohol consumption above 150 g per day for prolonged periods of time (Gmel et al., 2013).

Formula X2

$$AAF = \frac{P_{FD}(RR_{FD} - 1) + \int_{>0}^{150} P_{CD}(x)(RR_{CD}(x) - 1)dx}{P_{FD}(RR_{FD} - 1) + \int_{>0}^{150} P_{CD}(x)(RR_{CD}(x) - 1)dx + 1}$$

The fraction of ischaemic stroke, ischaemic heart disease and injuries in the AAF is estimated on the basis of formulas X3 and X4. These formulae incorporate the prevalences of both former drinkers and current drinkers combined with the corresponding RRs. In the case of current drinkers, Formula X4 also accounts for the patterns of alcohol consumption (i.e. the prevalence of current drinkers who engage in binge drinking (P_{CDB}) and who do not engage in binge drinking (P_{CDNB})).

Formula X3

$$AAF = \frac{P_{FD}(RR_{FD} - 1) + P_{CD}(RR_{CD} - 1)}{P_{FD}(RR_{FD} - 1) + P_{CD}(RR_{CD} - 1) + 1}$$

Formula X4

$$P_{CD}(RR_{CD}-1)=\int_{>0}^{60}P_{CDNB}(x)RR_{CDNB}(x)dx+\int_{>0}^{60}P_{CDB}(x)RR_{CDB}(x)dx+\int_{60}^{150}P_{CD}(x)RR_{CDB}(x)dx-P_{CD}$$

The AAF for road injuries affecting the driver was applied to the mortality and morbidity estimates. The AAF for road injuries affecting people other than the driver (non-drivers, or nd) was estimated using Formula X5 below, and used data on the deaths and AAFs for road injuries affecting the driver (d) by sex (indexed by p) and age (indexed by i). This method assumes that accidents involving an intoxicated driver also involve an equal number of passengers, as compared to accidents involving non-intoxicated drivers. This method also does not account for non-intoxicated drivers killed or injured by intoxicated drivers.

Formula X5

$$AAF_{nd}=\frac{\sum_{p=1}^{pn}\sum_{i=1}^{in}D_{p,i}\cdot AAF_{p,i}}{\sum_{p=1}^{pn}\sum_{i=1}^{in}D_{p,i}}$$

Population data

Population data by country, age and sex were obtained from the United Nations Population Division (2022 revisions) (United Nations Department of Economic and Social Affairs, 2022). Population age-standardized rates were based on WHO's standard population (Ahmad et al., 2001).

Relative risks

Where available, the selection of RRs was based on systematic reviews of meta-analyses (see Table A1.2.4). For Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, Russia and Ukraine, RRs from the Russian cohort study by Zaridze and colleagues were used to model mortality and morbidity from tuberculosis, lower respiratory infections, ischaemic heart disease, ischaemic stroke, haemorrhagic stroke, liver cirrhosis, pancreatitis, road injuries, other unintentional injuries, self-harm and interpersonal violence attributable to alcohol consumption (Zaridze et al., 2009; Shield & Rehm, 2015).

Modelling alcohol consumption for the estimation of alcohol-attributable mortality and morbidity

Alcohol consumption was modelled on the basis of the sum of: 1) the prevalence of different drinking statuses (current drinkers, former drinkers, lifetime abstainers); 2) the average daily volume of alcohol consumption among current drinkers, modelled on the basis of per capita consumption, the prevalence of current drinkers, and the amount of alcohol consumed among current drinkers by age and sex; and 3) the prevalence of binge drinkers, defined as drinking 60 g or more of pure alcohol on one occasion, modelled on the basis of the prevalence of current drinkers and the prevalence of binge drinkers among current drinkers. Data on alcohol consumption (drinking status and amount consumed by current drinkers) and binge drinking were available by age group (15–19 years, 20–24 years, 25–34 years, 35–49 years, 50–64 years, and 65 years of age and older) and sex.

The amount of alcohol consumed by current drinkers was adjusted using a correction factor of 0.8. This correction factor was used to account for: 1) alcohol that was not consumed; and 2) the underreporting of alcohol consumption in medical observation studies from which the RR estimates used in this study were obtained (Gmel & Rehm, 2004). A study by Stockwell and colleagues found that cohort studies of the relationship between alcohol consumption and all-cause mortality had a coverage rate (when compared to per capita consumption) of 61.71% (ranging from 29.19% for Russia to 96.53% for Japan) (Stockwell et al., 2018). The adjustment of survey data can be justified by the observation that the underreporting of alcohol consumption in medical epidemiology studies (King & Heymann, 2014; Rehm, 1998; Feunekes et al., 1999) is much less than in population surveys. Population-level surveys underestimate alcohol consumption because, on average, such surveys ask many fewer questions that are used to measure alcohol consumption compared to the number of such questions asked in medical epidemiology studies (King & Heymann, 2014; Rehm, 1998; Feunekes et al., 1999). Furthermore, the under-coverage of population surveys is also affected by recruitment biases (Shield & Rehm, 2012); however, the adjustment of survey data assumes that the under-coverage of alcohol consumption is constant by age and sex.

Average daily alcohol consumption among current drinkers was modelled using a Gamma distribution in accordance with the methodology outlined by Rehm and colleagues (Rehm et al., 2010b) and Kehoe and colleagues (Kehoe et al., 2012). This methodology was developed by using data from over 60 individual surveys conducted in both developing and developed countries. Firstly, this method assumes that the average daily alcohol consumed among current drinkers can be accurately modelled using a Gamma distribution, which was the case in the surveys examined by both Rehm and Kehoe and their respective colleagues. Secondly, this method assumes that the standard deviation of the Gamma distribution of alcohol consumption can be predicted on the basis of the mean consumption of alcohol. Both Rehm and Kehoe and their respective colleagues observed a strong correlation between the mean and the standard deviation of the Gamma distribution (an r of 0.971). Therefore, on the basis of the mean alcohol consumed (μ) by age and sex, the standard deviation (σ) was estimated according to Formula X6 (the coefficient of sex is 1 for women and 0 for men in Formula X6).

Formula X6

$$\hat{\sigma}_{shifted=}(1.171 + 0.087 * sex) * \hat{\mu}_{shifted}$$

Uncertainty estimation

The 95% uncertainty intervals (UI) were estimated using Monte Carlo-like simulations. These intervals were based on the 2.5th and 97.5th percentiles of the distribution of PAF estimates constructed using 1000 samples of the lowest-level parameters of alcohol consumption and RRs from their respective probability distributions (Gmel et al., 2011). Uncertainty from population figures and mortality and morbidity data was not incorporated into the 95% UIs. When modelled, alcoholic cardiomyopathy deaths also took into consideration uncertainty in the regression model and the regression inputs.

Table A1.2.3 Brief description of the methodology and data sources for indicators related to health consequences

Indicator	Definition	Methodology
Alcohol-attributable fractions	The alcohol-attributable fraction (AAF) denotes the proportion of a health outcome, which is caused by alcohol (i.e. that proportion which would disappear if alcohol consumption was removed). Alcohol consumption has a causal impact on more than 200 health conditions (diseases and injuries).	Population-attributable fractions are calculated on the basis of the level of exposure to alcohol and the risk relations between consumption and different disease or injury categories. For each disease, the exact proportion is different and will depend on the level and patterns of alcohol consumption, and on the relative risks. Data are presented as a percentage.
Alcohol-attributable number of deaths	The absolute number of deaths that can be attributed to alcohol for each of the causes of death.	Alcohol-related deaths are calculated as the total number of deaths (for each age-sex-country-disease unit) multiplied by the AAF for the same age-sex-country-disease unit.
Alcohol-attributable disability-adjusted life years (DALYs) lost	The DALY is a measure of overall disease burden. Alcohol-attributable DALYs lost may be interpreted as the number of years lost due to ill-health, disability or early death from the use of alcohol. Alcohol-attributable DALYs lost are DALYs lost that would not have occurred if alcohol were not consumed in the population.	Alcohol-attributable DALYs lost are calculated as the sum of alcohol-attributable YLL and YLD (years lost due to disability). Alcohol-attributable YLL and YLD are calculated as the total number of YLL/YLD for each age-sex-country-disease unit multiplied by the AAF for each age-sex-country-disease unit. AAFs for YLL and YLD are calculated separately, as alcohol may have a different impact on fatal versus nonfatal outcomes.
Prevalence of alcohol use disorders and alcohol dependence	Data on the prevalence of people with alcohol use disorders (AUDs), including harmful use and alcohol dependence.	Where available, the original treatment data on AUDs were used. When treatment data were not available, the prevalence of AUDs was modelled on the basis of a regression analysis.

Table A1.2.4 Causes and sources of relative risks and causality

Cause code	GHE 2016 cause category	ICD-10 coding	Relative risk	Causality
10	**I. Communicable, maternal, perinatal, and nutritional conditions**	A00–B99, D50–D53, D64.9, E00–E02, E40–E46, E50–E64, G00–G04, G14, H65–H66, J00–J22, N70–N73, O00–O99, P00–P96, U04		
20	A. Infectious and parasitic diseases	A00–B99, G00–G04, G14, N70–N73, P37.3, P37.4		
30[1]	1 Tuberculosis	A15–A19, B90	(Imtiaz et al., 2017)	(Rehm et al., 2009)
100	3 HIV/AIDS	B20–B24	(Rehm et al., 2017b)	(Rehm et al., 2017a; Scott-Sheldon et al., 2016)
380[1]	B. Respiratory infections	H65–H66, J00–J22, P23, U04		
390	1 Lower respiratory infections	J09–J22, P23, U04	(Samokhvalov et al., 2010a)	(Samokhvalov et al., 2010a; Traphagen et al., 2015; Simet & Sisson, 2015)
600	**II. Noncommunicable diseases**	C00–C97, D00–D48, D55–D64 (minus D 64.9), D65–D89, E03–E07, E10–E34, E65–E88, F01–F99, G06–G98 (minus G14), H00–H61, H68–H93, I00–I99, J30–J98, K00–K92, L00–L98, M00–M99, N00–N64, N75–N98, Q00–Q99, X41–X42, X44, X45, R95		
610	A. Malignant neoplasms	C00–C97		
620	1 Mouth and oropharynx cancers	C00–C14		

Table A1.2.4 *continued*

Cause code	GHE 2016 cause category	ICD-10 coding	Relative risk	Causality
621	a. Lip and oral cavity	C00–C08	(Bagnardi et al., 2015)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
623	c. Other pharyngeal cancers	C09–C10, C12–C14	(Bagnardi et al., 2015)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
630	2 Oesophagus cancer	C15	(Bagnardi et al., 2015)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
650	4 Colon and rectum cancers	C18–C21	(Vieira et al., 2017)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
660	5 Liver cancer	C22	(World Cancer Research Fund/ American Institute for Cancer Research, 2018)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
700	9 Breast cancer	C50	(Sun et al., 2020)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
710	10. Cervix uteri cancer	C53	(Rehm et al., 2017b)	(Rehm et al., 2017; Scott-Sheldon et al., 2016)
753	19 Larynx cancer	C32	(Bagnardi et al., 2015)	(International Agency for Research on Cancer, 2009; International Agency for Research on Cancer, 2007)
800	**C. Diabetes mellitus**	E10–E14 (minus E10.2–E10.29, E11.2–E11.29, E12.2, E13.2–E13.29, E14.2)	(Llamosas-Falcón et al., in preparation)	(Knott et al., 2015b; Rehm et al., 2010a)
820	**E. Mental and substance use disorders**	F04–F99, G72.1, Q86.0, X41–X42, X44, X45		
860	4 Alcohol use disorders	F10, G72.1, Q86.0, X45		
940	**F. Neurological conditions**	F01–F03, G06–G98 (minus G14, G72.1)		
970	3 Epilepsy	G40–G41	(Samokhvalov et al., 2010b)	(Bartolomei et al., 1997; Barclay et al., 2008; Leach et al., 2012)
1100	**H. Cardiovascular diseases**	I00–I99		
1120	2 Hypertensive heart disease	I10–I15	(World Health Organization, 2018b)	(Puddey et al., 1999a; O'Keefe et al., 2014)
1130[1]	3 Ischaemic heart disease	I20–I25	(Rehm et al., 2016; Roerecke and Rehm, 2012; Roerecke & Rehm, 2011)	(Roerecke & Rehm, 2014a; Mukamal & Rimm, 2001; Collins et al., 2009)

Table A1.2.4 *continued*

Cause code	GHE 2016 cause category	ICD-10 coding	Relative risk	Causality
1140	4 Stroke	I60–I69		
1141[1]	a. Ischaemic stroke	G45–G46.8, I63–I63.9, I65–I66.9, I67.2–I67.848, I69.3–I69.4	(Patra et al., 2010; Rehm et al., 2016)	(Collins et al., 2009; Puddey et al., 1999b; Mazzaglia et al., 2001)
1142[1]	b. Haemorrhagic stroke	I60–I62.9, I67.0–I67.1, I69.0–I69.298	(Larsson et al., 2016)	(Collins et al., 2009; Puddey et al., 1999b; Mazzaglia et al., 2001)
1150	5 Cardiomyopathy, myocarditis, endocarditis	I30-I33, I38, I40, I42		
1210	**J. Digestive diseases**	K20–K92		
1230[1]	2 Cirrhosis of the liver	K70, K74	(Roerecke et al., 2019)	(Gao & Bataller, 2011)
1248[1]	8 Pancreatitis	K85–K86	(Samokhvalov et al., 2015)	(Gao & Bataller, 2011; Braganza et al., 2011; Yadav & Lowenfels, 2013; Lankisch et al., 2015; Majumder & Chari, 2016)
1510	**III. Injuries**			
1520	**A. Unintentional injuries**	V01–X40, X43, X46–59, Y40–Y86, Y88, Y89		
1530[1]	1 Road injury	V01–V04, V06, V09–V80, V87, V89, V99	(World Health Organization, 2018a)	(World Health Organization, 2009)
1540[1]	2 Poisonings	X40, X43, X46–X48, X49	(World Health Organization, 2018a)	(World Health Organization, 2009)
1550[1]	3 Falls	W00–W19	(World Health Organization, 2018a)	(World Health Organization, 2009)
1560[1]	4 Fire, heat and hot substances	X00–X19	(World Health Organization, 2018a)	(World Health Organization, 2009)
1570[1]	5 Drowning	W65–W74	(World Health Organization, 2018a)	(World Health Organization, 2009)
1575[1]	6 Exposure to mechanical forces	W20–W38, W40–W43, W45, W46, W49–W52, W75, W76	(World Health Organization, 2018a)	(World Health Organization, 2009)
1590[1]	8 Other unintentional injuries	Rest of V, W39, W44, W53–W64, W77–W99, X20–X29, X50–X59, Y40–Y86, Y88, Y89	(World Health Organization, 2018a)	(World Health Organization, 2009)
1600	**B. Intentional injuries**			
1610[1]	1 Self-harm	X60–X84, Y870	(World Health Organization, 2018a)	(World Health Organization, 2009)
1620[1]	2 Interpersonal violence	X85–Y09, Y871	(World Health Organization, 2018a)	(World Health Organization, 2009)

[1] For Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, Russia, and Ukraine, RRs from the Russian cohort study by Zaridze and colleagues were used to model mortality and morbidity from tuberculosis, lower respiratory infections, ischaemic heart disease, ischaemic stroke, haemorrhagic stroke, liver cirrhosis, pancreatitis, road injuries, other unintentional injuries, self-harm and interpersonal violence attributable to alcohol consumption (Zaridze et al., 2009; Shield & Rehm, 2015).

A1.3 Data sources and methods used for Chapter 3

Treatment coverage and Service Capacity Index for Substance Use Disorders (SCI-SUD)

The data generated in the Global Survey on Progress on SDG health target 3.5 served as the main source of the data for Chapter 3 and section 3.2 of the report. The data collection tool included a section that specifically focused on service coverage and capacity of treatment services to address the needs of populations with substance use disorders (SUDs).

The treatment contact coverage for alcohol and drug use disorders was calculated for those countries which provided nationwide data on the number of people receiving treatment services at least once in a year, dividing it by the total number of people with alcohol or drug use disorders in the same year and multiplying by 100. Methods of estimation of prevalence of alcohol use disorders used as denominator are described above and estimates of the prevalence of drug use disorders are produced by the Institute for Health Metrics and Evaluation (IHME), and published through the Global Burden of Disease (GBD) study.

The section on service capacity was structured around the building blocks (domains) of WHO's Framework for Monitoring Health Systems (World Health Organization, 2010b), namely: 1) service delivery; 2) health workforce; 3) health information system; 4) access to medicines; 5) financing; and 6) governance. Each domain included a range of subdomains with specific questions regarding required service elements (Table A1.3.1). The development of that part of the data collection tool, including the selection of subdomains and indicators included in each building block, were based on expert consultations during the WHO preparatory meeting on monitoring universal health coverage for alcohol and drug use disorders held in February 2018 and series of meetings of the WHO Technical Advisory Group on Alcohol and Drug Epidemiology. All relevant data collected were used to produce a single value index that would denote overall national capacity of services for SUDs ranging from 0 to 1 (convertible to percentage points), with higher values indicating higher overall capacity of services. The SCI-SUD was directly calculated by dividing the reported value by the theoretical maximum value per every variable (i.e. proportion from maximum), and then averaging all of proportions at the country level with 95% confidence intervals (95% CI) around the mean via the bootstrap method. Any missing values were treated as zeros. All variables were considered to have the same weight in the computation of the index. For countries that did not submit any data or had a level of missingness that was deemed to be very high (missing information on 90 or more indicators), a multivariate imputation by chained equations (MICE) was used. The robustness of the multiple imputation approach was evaluated using the leave-one-out cross-validation technique for 145 countries where direct values were available and demonstrated highly consistent SCI-SUD estimates. On the basis of direct and imputed SCI-SUD values, regional averages were calculated for the six WHO regions. More details on the methods for data collection and analysis are explained in Krupchanka et al., 2022.

Table A1.3.1 Domains, subdomains and key elements of the Service Capacity Index for Substance Use Disorders (SCI-SUD)

Overall service coverage and capacity

Scope	Value (%; 95% CI)	Estimate
Service capacity (SUD)	0–100 % (95% CI)	Direct/indirect
Service capacity (AUD)	0–100 % (95% CI) / NA	Direct only
Service capacity (DUD)	0–100 % (95% CI) / NA	Direct only
Treatment contact coverage (AUD)	0–100 % / NA	Direct only
Treatment contact coverage (DUD)	0–100 % / NA	Direct only

SUD = substance use disorders; AUD = alcohol use disorders; DUD = drug use disorders.

Domain: Service delivery

Services	Alcohol	Drugs
Screening and brief intervention programmes	available/limited availability/not available	available/limited availability/not available
Specialized services	available/limited availability/not available	available/limited availability/not available
Services for groups with special needs: people with comorbid conditions and disability	available/not available	available/not available
Services for groups with special needs: children and adolescents	available/not available	available/not available
Services for groups with special needs: women	available/not available	available/not available
Services for groups with special needs: pregnant women	available/not available	available/not available
Services for groups with special needs: people in contact with criminal justice (treatment as an alternative to criminal sanctions)	available/not available	available/not available
Services for groups with special needs: people in contact with criminal justice – treatment in addition to criminal sanctions	available/not available	available/not available
Pharmacological treatment for people with SUD	available/limited availability/not available	available/limited availability/not available
Pharmacological treatment of substance-related emergency conditions	available/not available	available/not available
Pharmacological treatment of non-complicated withdrawal syndrome	available/not available	available/not available
Pharmacological treatment of complicated withdrawal syndrome	available/not available	available/not available
Opioid agonist maintenance treatment (OAMT) for opioid dependence	NA	available/not available
Pharmacological treatment other than OAMT for relapse prevention of SUD	available/not available	available/not available
Pharmacological treatment of comorbid conditions	available/not available	available/not available
Programmes for drug overdose prevention and management	available/not available	available/not available

Table A1.3.1 *continued*

Services	Alcohol	Drugs
Psychosocial interventions for treatment of SUD	available/limited availability/not available	available/limited availability/not available
Cognitive behavioural therapy	available/not available	available/not available
Contingency management	available/not available	available/not available
Family/couple therapy	available/not available	available/not available
Motivational enhancement therapy/motivational interviewing	available/not available	available/not available
Psychodynamic therapy	available/not available	available/not available
Psychoeducation	available/not available	available/not available
Twelve-step approach	available/not available	available/not available
Mutual help/peer support groups for people living with SUD	available/limited availability/not available	available/limited availability/not available
Rehabilitation programmes for people with SUD	available/limited availability/not available	available/limited availability/not available
Education programmes	available/not available	available/not available
Employment assistance programmes	available/not available	available/not available
Access to free legal consultations/support	available/not available	available/not available
Rehabilitation inpatient programmes	available/not available	available/not available
Rehabilitation outpatient programmes	available/not available	available/not available
Special housing services	available/not available	available/not available
Welfare assistance/benefits	available/not available	available/not available
Low-threshold community outreach services	available/not available	available/not available
Needle and syringe exchange programme for injecting drug users	NA	available/not available

Domain: Health workforce

Health professionals	Availability for treatment of SUD	Availability of continuing professional education	Availability of postgraduate training
Psychiatrists	available/not available	available/not available	available/not available
Psychologists	available/not available	available/not available	available/not available
Social workers	available/not available	available/not available	available/not available
Addiction medicine specialists/narcologists	available/not available	available/not available	available/not available
Nurses	available/not available	available/not available	available/not available
Addiction counsellors	available/not available	available/not available	available/not available
Community health workers	available/not available	available/not available	available/not available
Outreach/field workers	available/not available	available/not available	available/not available

Table A1.3.1 *continued*

Domain: Health information system

Data collection	Alcohol	Drugs
Prevalence of SUD among adult population	within the last 5 years/older than 5 years/ not available	within the last 5 years/older than 5 years/ not available
Service provision for treatment of SUD	available/not available	available/not available
Service utilization for treatment of SUD	available/not available	available/not available

Domain: Access to medicines

Medicine	Registered in the country	Included in national drug formulary/ essential medicines list	Included into official manual/ national treatment guidelines	Provided free of charge in public health-care sector	Included in basic insurance package	Quantitative data are available on the number of prescriptions/ sales
Acamprosate	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Disulfiram	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Benzodiazepines	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Naltrexone	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Buprenorphine	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Methadone	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Extended release formulations of opioid agonists	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Buprenorphine with naloxone	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Clonidine/ Lofexidine	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no
Naloxone	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no

Domain: Governance

Elements	Alcohol	Drugs
National action plans on development of treatment of SUD	available/not available	available/not available
National policy on development of treatment of SUD	available/not available	available/not available
Government unit or government official at national level responsible for policy regarding treatment of SUD	available/not available	available/not available
Regular involvement of representatives of affected and targeted populations in the development and formulation of policies and strategies regarding treatment of SUD	available/not available	available/not available
National treatment guidelines/standards for the public specialized treatment services	available/not available	available/not available

A1.4 Data sources and methods used for estimation of drug-attributable disease burden

Attributable deaths and DALYs have been estimated for years 2000, 2005, 2010, 2015, 2017 and 2019 for the six WHO regions and the world, calculated by psychoactive drug class, cause of death, age and sex. The causes of deaths in the analysis included the following groups of conditions: drug use, road injury, suicide, HIV, hepatitis B, hepatitis C.

The estimates are based on PAFs, prevalence estimates for drug dependence and the relative risks, using a variety of information sources such as the IHME Global Burden of Disease study, United States death registration data, published analyses of drug-specific overdose deaths, and pooled relative risks from meta-analyses, supplemented by consultation with WHO regional offices. These PAFs were then applied to the WHO cause-of-death estimates for years 2000–2017 to estimate attributable deaths for opioids, cocaine, amphetamines, cannabis and other drugs.

All calculations were carried out at country level and then summed to WHO regions and the world for public release. Uncertainty ranges were calculated for results at regional and global level.

Causes of death and DALYs

The injury codes for accidental poisoning by alcohol and drugs are used to code acute intoxication deaths from alcohol and acute overdose deaths for drugs. The latest WHO Global Health Estimates (GHE2019) for causes of death (World Health Organization, 2020a) and DALYs (World Health Organization, 2020b), and the IHME 2019 Global Burden of Disease study (Vos T et al., 2020a) remap these deaths to alcohol use disorders and drug use disorders respectively. This mapping is complicated by the need to distribute the accidental poisoning category for "other and unspecified chemicals and noxious substances" (X49) to the specific categories for alcohol and drug use disorders (opioids, cocaine, amphetamines, cannabis and "other drugs") and to accidental poisoning (non-drug and non-alcohol). Additionally, there is a category F19 in the mental health chapter for "multiple drug use and unspecified drug use disorders" which is used to code deaths in some countries and also must be redistributed appropriately. GHE2019 cause-specific estimates were also used for other infectious disease and injury causes of death and YLD for which a portion is attributable to drugs (World Health Organization, 2020a; 2020b).

Prevalence of drug dependence

Country-specific prevalence of drug dependence by year is taken from Global Burden of Disease 2019 results for the categories: opioids, cocaine, amphetamines, cannabis, and other drugs (Global Burden of Disease Collaborative Network, 2020).

Attributable fractions for road injury and suicide

Relative risks for deaths from road injury by drug type were based on results of a systematic review (Elvik R, 2013). This evidence is discussed in more detail in a later WHO publication (World Health Organization, 2016). Based on advice from a WHO Technical Advisory Group (World Health Organization, 2015), the relative risk for road injury death associated with drug use was based on studies reported by Elvik (Elvik R, 2013) which controlled for at least three of the main confounding factors.

Relative risks for suicide were derived from a systematic review and meta-analysis (Ferrari AJ et al., 2014). The evidence for the association of suicide with cannabis use was considered not sufficiently strong. Insufficient information was available to quantify any risk of psychosis associated with cannabis use.

The relative risks used for deaths from road injury and suicide by drug type are shown in Table A1.4.1 for each drug type except for "other drugs" (Babor TF et al., 2018). The relative risks were assumed to be 1.0 for other drugs.

Table A1.4.1 Estimated relative risks (RR) and 95% uncertainty bounds

Category	RR	Lower 95%	Upper 95%
Road injury			
Amphetamine use	7.8	1.9	32.0
Cannabis use	1.8	1.4	2.1
Cocaine use	4.5	1.2	16.3
Opioid use	2.5	1.6	4.0
Suicide			
Amphetamine	8.2	3.9	16.9
Cannabis	1.0	1.0	1.0
Cocaine	8.2	3.9	16.9
Opioid	6.9	4.5	10.5

PAFs were calculated using the prevalence estimates for drug dependence and the relative risks. The prevalence for cannabis use disorder was increased by a factor of 4.2 to include all cannabis use for the calculation of road injury PAFs.

Attributable fractions for injecting drug use

GBD 2019 estimates of infectious disease deaths attributable to injecting drug use (Global Burden of Disease Collaborative Network, 2020) were used to calculate PAFs for drug use for the following diseases: HIV, hepatitis B and hepatitis C, liver cancer due to hepatitis B and C, and cirrhosis of the liver due to hepatitis B and C. These PAFs were then applied to the GHE2019 cause-of-death estimates for years 2000–2019 to estimate deaths from these causes attributable to injecting drug use.

HIV, HBV and HCV deaths by drug type

Deaths attributable to injecting drug use are apportioned to the specific drug types using regional distributions of type of drug injected, as developed from a review of literature supplemented by consultation with WHO regional offices.[1] Table A1.4.2 shows the estimated proportions of injected drug types by broad region.

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[1] Unpublished review of the distribution of injecting drug use by type. Geneva: World Health Organization

Table A1.4.2 Estimated proportions of type of drug injected, by broad region

Region	Opioids	Cocaine	ATS*	Other	Total
North America	0.85	0.04	0.09	0.02	**1.0**
Latin America & Caribbean	0.63	0.32	0.05	—	**1.0**
Europe	0.84	0.06	0.08	0.02	**1.0**
Other	0.91	0.01	0.08	—	**1.0**

*Amphetamine-type stimulants (ATS)

This distribution is assumed to hold constant across years 2000–2019.

Estimation of YLD and DALYs attributable to drug use

Country-specific YLD for drug use disorders for years 2000–2019 are taken from GBD 2019 results for the following categories: opioids, cocaine, amphetamines, cannabis, other drugs (Global Burden of Disease Collaborative Network, 2020). Methods used for the estimation of YLD due to drug use disorders are documented elsewhere (Vos et al., 2020b). Attributable fractions calculated as described above for attributable injury and infectious disease causes were applied to the relevant YLD estimates from GBD 2019 (Global Burden of Disease Collaborative Network, 2020).

DALYs are calculated as the sum of YLD and YLL, where YLL are calculated from the estimated attributable drug deaths by age and sex using the WHO standard expected years of life lost according to age at death (World Health Organization, 2020b).

Uncertainty estimates

For both the attributable deaths and DALYs, 95% uncertainty ranges have been estimated by propagating uncertainty in all inputs through to final results at regional and country income group levels. Uncertainty ranges for GHE cause-specific mortality estimates are documented elsewhere (World Health Organization, 2020a). Uncertainty estimates for the prevalence of drug use disorders, cause-specific YLD attributable to drug use, and deaths and YLD attributable to injecting drug use were obtained from GBD 2019 results (Global Burden of Disease Collaborative Network, 2020). Uncertainty in relative risks for road injury deaths and suicide is shown in Table A1.4.3. Uncertainty in the type distributions for injecting drug use were assumed to follow triangular distributions with the lower and upper limits indicated in Table A1.4.3.

Table A1.4.3 Uncertainty ranges for estimated proportions of type of drug injected, by broad region

Region	Opioids	Cocaine	Amphetamines	Other
North America	0.85 (0.8–0.95)	0.04 (0.01–0.08)	0.09 (0.025–0.12)	0.02 (0–0.04)
Europe	0.84 (0.8–0.95)	0.06 (0.01–0.08)	0.08 (0.025–0.12)	0.02 (0–0.04)
Latin America & Caribbean	0.63 (0.5–0.85)	0.32 (0.1–0.4)	0.05 (0–0.1)	0 (0–0.02)
Other	0.91 (0.85–1)	0.01 (0–0.03)	0.08 (0–0.12)	0 (0–0.02)

A1.5 Additional information

Table A1.5.1 WHO Member States by WHO Region, 2019

WHO Region	WHO Member States
Africa	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.
Americas	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States of America, Uruguay, Venezuela (Bolivarian Republic of).
Eastern Mediterranean	Afghanistan, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen.
Europe	Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands (Kingdom of the), North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Türkiye, Turkmenistan, Ukraine, United Kingdom of Great Britain and Northern Ireland, Uzbekistan.
South-East Asia	Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor–Leste.
Western Pacific	Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Fiji, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Marshall Islands, Micronesia (Federated States of), Mongolia, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Tonga, Tuvalu, Vanuatu, Viet Nam.

Table A1.5.2 WHO Member States by World Bank income group, 2019

Income group	WHO Member States
High (56)	Andorra, Antigua and Barbuda, Australia, Austria, Bahamas, Bahrain, Barbados, Belgium, Brunei Darussalam, Canada, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Latvia, Lithuania, Luxembourg, Malta, Monaco, Nauru, Netherlands (Kingdom of the), New Zealand, Norway, Oman, Panama, Poland, Portugal, Qatar, Republic of Korea, Romania, Saint Kitts and Nevis, San Marino, Saudi Arabia, Seychelles, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay.
Upper middle (55)	Albania, Argentina, Armenia, Azerbaijan, Belarus, Belize, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, China, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, Equatorial Guinea, Fiji, Gabon, Georgia, Grenada, Guatemala, Guyana, Iraq, Jamaica, Jordan, Kazakhstan, Libya, Malaysia, Maldives, Mauritius, Mexico, Montenegro, Namibia, Niue, North Macedonia, Paraguay, Peru, Republic of Moldova, Russian Federation, Saint Lucia, Saint Vincent and the Grenadines, Serbia, South Africa, Suriname, Thailand, Tonga, Türkiye, Turkmenistan, Tuvalu.
Lower middle (50)	Algeria, Angola, Bangladesh, Benin, Bhutan, Bolivia (Plurinational State of), Cabo Verde, Cambodia, Cameroon, Comoros, Congo, Côte D'Ivoire, Djibouti, Egypt, El Salvador, Eswatini, Ghana, Haiti, Honduras, India, Indonesia, Iran (Islamic Republic of), Kenya, Kiribati, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Lesotho, Marshall Islands, Mauritania, Micronesia (Federated States of), Mongolia, Morocco, Myanmar, Nepal, Nicaragua, Nigeria, Pakistan, Palau, Papua New Guinea, Philippines, Samoa, São Tome and Principe, Senegal, Solomon Islands, South Sudan, Sri Lanka, Tajikistan, Timor–Leste, Tunisia, Ukraine, United Republic of Tanzania, Uzbekistan, Vanuatu, Venezuela (Bolivarian Republic of), Viet Nam, Zimbabwe.
Low (31)	Afghanistan, Burkina Faso, Burundi, Central African Republic, Chad, Democratic People's Republic of Korea, Democratic Republic of the Congo, Eritrea, Ethiopia, Gambia, Guinea, Guinea Bissau, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Sudan, Syrian Arab Republic, Togo, Uganda, Yemen, Zambia.
Unavailable (1)	Cook Islands

Table AI.5.3 Countries with a total ban on alcoholic beverages by WHO region

WHO Region	Total ban countries
Africa (1)	Mauritania
Americas (0)	
Eastern Mediterranean (7)	Afghanistan, Iran (Islamic Republic of), Libya, Saudi Arabia, Somalia, Sudan, Yemen
Europe (0)	
South-East Asia (1)	Maldives
Western Pacific (1)	Brunei Darussalam

ANNEX 2

Statistical annex on alcohol and health

Table A2.1.1 Alcohol per capita consumption (APC)

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
AFRICAN REGION									
Algeria	0.6	0.1, 1.4	1.1	0.1, 2.4	0.1	0.1, 0.3	1.3	0.6	0.8
Angola	6.2	3.9, 8.5	9.8	6.2, 13.5	2.7	1.7, 3.8	13.4	5.4	5.7
Benin	8.3	5.1, 11.5	13.5	8.3, 18.6	3.3	2.0, 4.6	18.1	8.7	8.5
Botswana	8.2	5.6, 10.9	13.8	9.4, 18.4	2.8	1.9, 3.9	17.7	8.5	8.6
Burkina Faso	9.8	6.8, 13.0	16.6	11.4, 22.1	3.3	2.2, 4.5	21.3	9.9	10.9
Burundi	4.1	2.2, 6.2	6.8	3.7, 10.2	1.5	0.8, 2.4	9.0	4.1	3.4
Cabo Verde	6.3	4.0, 8.8	10.0	6.3, 14.1	2.6	1.6, 3.7	13.6	6.2	7.0
Cameroon	10.1	6.1, 13.9	16.2	9.7, 22.3	4.1	2.5, 5.8	21.9	10.0	10.1
Central African Republic	2.0	0.8, 3.4	3.2	1.2, 5.4	0.8	0.3, 1.4	4.3	2.0	1.9
Chad	3.7	1.2, 6.3	6.3	2.1, 10.6	1.2	0.4, 2.0	8.1	3.5	4.2
Comoros	0.3	0.1, 0.8	0.5	0.1, 1.4	0.1	0.1, 0.2	0.5	0.2	0.4
Congo	6.4	4.1, 8.7	10.1	6.4, 13.8	2.7	1.7, 3.8	13.9	6.2	7.9
Côte d’Ivoire	2.8	1.2, 4.6	4.6	2.0, 7.5	1.0	0.4, 1.6	6.1	2.9	2.8
Democratic Republic of the Congo	2.1	0.7, 3.8	3.4	1.1, 6.1	0.9	0.3, 1.6	4.6	2.0	1.4
Equatorial Guinea	6.9	4.6, 9.4	10.4	6.9, 14.2	2.8	1.8, 3.9	15.1	7.3	7.4
Eritrea	1.2	0.3, 2.4	2.1	0.5, 4.2	0.4	0.1, 0.7	2.7	1.2	1.6
Eswatini	8.1	5.3, 11.0	13.7	8.9, 18.6	2.7	1.8, 3.8	17.6	8.1	7.8
Ethiopia	3.4	1.4, 5.5	5.7	2.4, 9.3	1.0	0.4, 1.7	7.3	3.7	5.1
Gabon	7.3	4.9, 9.8	11.5	7.7, 15.4	2.9	2.0, 4.0	15.9	7.0	6.4
Gambia	1.1	0.2, 2.2	1.9	0.3, 3.8	0.3	0.1, 0.7	2.4	0.9	0.6
Ghana	4.5	2.0, 7.1	7.4	3.3, 11.6	1.8	0.8, 2.8	9.9	4.5	4.5
Guinea	0.5	0.1, 1.2	0.8	0.1, 2.1	0.1	0.1, 0.3	1.0	0.5	0.6
Guinea-Bissau	4.1	2.2, 6.2	7.1	3.8, 10.6	1.4	0.7, 2.1	9.0	3.9	4.1

Table A2.1.1 *continued*

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
Kenya	2.9	1.3, 4.5	4.8	2.2, 7.6	1.0	0.5, 1.6	6.2	2.8	3.2
Lesotho	4.5	2.6, 6.6	7.8	4.4, 11.4	1.4	0.8, 2.1	9.9	4.5	5.3
Liberia	3.6	1.8, 5.5	5.9	2.9, 9.0	1.4	0.7, 2.2	7.9	3.5	3.4
Madagascar	1.0	0.2, 2.1	1.7	0.3, 3.4	0.4	0.1, 0.7	2.2	1.0	0.9
Malawi	3.2	1.3, 5.2	5.5	2.3, 8.9	1.2	0.5, 1.9	7.0	3.4	3.5
Mali	4.3	2.4, 6.4	7.4	4.0, 10.9	1.2	0.7, 1.9	9.4	4.3	4.1
Mauritania	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.2	<0.1	<0.1
Mauritius	7.5	4.9, 10.2	12.5	8.1, 16.9	2.7	1.8, 3.8	16.3	7.6	7.4
Mozambique	2.0	0.7, 3.5	3.5	1.2, 6.1	0.7	0.2, 1.2	4.4	2.1	2.5
Namibia	5.9	3.7, 8.3	10.3	6.5, 14.5	2.0	1.2, 2.9	12.9	5.7	6.1
Niger	0.1	0.1, 0.5	0.2	0.1, 0.9	0.1	0.1, 0.1	0.3	0.1	0.1
Nigeria	4.2	2.2, 6.3	7.0	3.7, 10.6	1.4	0.7, 2.1	9.1	4.1	3.7
Rwanda	1.9	0.7, 3.2	3.2	1.1, 5.5	0.7	0.3, 1.2	4.1	3.0	4.0
Sao Tome and Principe	5.0	3.0, 7.2	7.9	4.8, 11.4	2.1	1.2, 3.0	10.9	5.2	5.0
Senegal	0.4	0.1, 1.1	0.7	0.1, 2.0	0.1	0.1, 0.3	0.9	0.4	0.4
Seychelles	12.0	8.2, 15.7	18.4	12.4, 24.1	4.7	3.2, 6.3	26.0	12.1	11.7
Sierra Leone	0.3	0.1, 0.8	0.5	0.1, 1.4	0.1	0.1, 0.2	0.6	0.3	0.3
South Africa	8.8	5.9, 11.6	15.2	10.3, 20.1	2.9	2.0, 4.0	19.0	8.9	8.9
South Sudan	–	–	–	–	–	–	–	–	–
Togo	1.4	0.4, 2.6	2.3	0.6, 4.3	0.5	0.1, 1.0	3.1	1.4	1.4
Uganda	12.2	8.0, 16.3	19.9	13.1, 26.6	4.9	3.2, 6.7	26.5	12.0	9.9
United Republic of Tanzania	10.4	6.5, 14.0	17.6	11.0, 23.8	3.6	2.2, 4.9	22.5	10.4	10.3
Zambia	3.9	2.2, 5.8	6.3	3.6, 9.5	1.5	0.8, 2.3	8.4	3.8	3.8
Zimbabwe	3.6	1.8, 5.7	6.5	3.2, 10.2	1.2	0.6, 2.0	7.9	3.9	4.6
REGION OF THE AMERICAS									
Antigua and Barbuda	8.5	4.7, 12.6	14.0	7.7, 20.7	3.6	2.0, 5.4	18.5	8.5	9.8
Argentina	8.0	5.5, 10.6	12.6	8.6, 16.6	3.7	2.5, 5.0	17.5	7.6	8.0
Bahamas	4.4	0.3, 8.6	7.2	0.4, 14.1	1.9	0.1, 3.7	9.5	4.4	4.3
Barbados	9.5	6.2, 12.7	15.7	10.3, 21.2	3.9	2.6, 5.3	20.6	9.5	10.5
Belize	5.7	3.1, 8.4	9.0	4.9, 13.4	2.4	1.3, 3.5	12.4	5.6	5.9

Table A2.1.1 *continued*

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
Bolivia (Plurinational State of)	4.1	2.1, 6.2	6.3	3.2, 9.5	1.9	1.0, 2.9	8.9	4.0	4.3
Brazil	7.7	5.1, 10.3	12.3	8.2, 16.6	3.3	2.2, 4.5	16.7	7.6	12.1
Canada	9.9	6.8, 13.0	15.6	10.6, 20.5	4.3	2.9, 5.8	21.5	9.8	10.0
Chile	6.7	4.5, 9.1	10.5	6.9, 14.2	3.1	2.0, 4.2	14.6	7.5	7.9
Colombia	4.9	2.8, 7.0	8.1	4.7, 11.5	1.9	1.1, 2.8	10.7	4.9	4.8
Costa Rica	3.5	1.8, 5.3	5.6	3.0, 8.6	1.3	0.7, 2.0	7.5	3.3	3.1
Cuba	6.0	3.6, 8.6	9.8	5.8, 13.9	2.3	1.4, 3.4	13.1	6.0	6.3
Dominica	6.1	3.7, 8.7	9.8	5.8, 13.9	2.4	1.5, 3.5	13.2	5.8	5.3
Dominican Republic	6.8	4.2, 9.4	10.7	6.6, 14.8	2.8	1.7, 3.9	14.7	6.9	6.5
Ecuador	3.3	1.7, 5.0	5.1	2.6, 7.7	1.5	0.8, 2.3	7.1	3.3	3.1
El Salvador	3.3	1.6, 5.0	5.6	2.7, 8.5	1.3	0.6, 2.0	7.1	3.4	3.5
Grenada	8.1	5.0, 11.1	12.8	8.0, 17.6	3.3	2.1, 4.6	17.5	8.2	8.4
Guatemala	1.6	0.5, 2.7	2.7	0.9, 4.5	0.6	0.2, 1.1	3.5	1.6	1.5
Guyana	5.3	3.4, 7.4	8.7	5.5, 12.1	2.2	1.4, 3.1	11.6	5.3	5.3
Haiti	3.5	1.8, 5.3	5.6	3.0, 8.5	1.4	0.8, 2.2	7.5	3.2	3.1
Honduras	3.2	1.6, 4.9	5.1	2.6, 7.9	1.2	0.6, 1.9	6.9	3.2	3.4
Jamaica	3.6	1.6, 5.6	5.8	2.6, 9.0	1.4	0.6, 2.2	7.8	3.6	3.6
Mexico	5.7	3.3, 8.2	9.4	5.4, 13.4	2.3	1.3, 3.4	12.4	5.8	5.8
Nicaragua	4.2	2.5, 6.1	6.8	4.0, 10.0	1.6	0.9, 2.4	9.1	4.0	4.1
Panama	6.6	4.3, 8.9	10.6	6.9, 14.4	2.6	1.7, 3.7	14.3	6.5	6.8
Paraguay	5.6	3.5, 7.8	8.8	5.5, 12.4	2.4	1.5, 3.4	12.2	5.6	5.7
Peru	7.5	4.7, 10.3	11.6	7.2, 16.0	3.5	2.1, 4.8	16.2	7.3	7.8
Saint Kitts and Nevis	6.3	2.7, 10.2	10.3	4.3, 16.5	2.7	1.1, 4.3	13.8	6.5	6.6
Saint Lucia	9.5	6.0, 12.7	15.1	9.7, 20.3	3.9	2.6, 5.3	20.6	10.2	10.2
Saint Vincent and the Grenadines	7.2	4.7, 9.7	11.3	7.4, 15.3	2.8	1.9, 3.9	15.5	7.1	8.1
Suriname	6.6	4.3, 9.0	10.8	7.0, 14.6	2.6	1.7, 3.5	14.4	7.1	8.2
Trinidad and Tobago	6.1	3.9, 8.4	9.9	6.3, 13.6	2.4	1.5, 3.4	13.2	6.3	6.7
United States of America	9.6	6.8, 12.3	15.0	10.7, 19.5	4.3	3.0, 5.6	20.8	9.6	9.8
Uruguay	5.5	3.4, 7.6	8.7	5.4, 12.2	2.5	1.5, 3.5	11.8	5.5	5.0

Table A2.1.1 *continued*

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
Venezuela (Bolivarian Republic of)	3.0	1.6, 4.7	5.0	2.6, 7.7	1.2	0.6, 1.8	6.5	2.4	1.8
EASTERN MEDITERRANEAN REGION									
Afghanistan	0.1	0.1, 0.1	0.1	0.1, 0.3	0.1	0.1, 0.1	0.0	<0.1	<0.1
Bahrain	1.6	0.3, 3.0	2.2	0.4, 4.3	0.3	0.1, 0.7	3.4	1.6	1.3
Djibouti	0.4	0.1, 1.1	0.7	0.1, 1.9	0.1	0.1, 0.3	0.9	0.3	0.3
Egypt	0.1	0.1, 0.5	0.3	0.1, 0.9	0.1	0.1, 0.1	0.3	0.1	0.2
Iran (Islamic Republic of)	0.7	0.1, 1.8	1.2	0.1, 3.1	0.1	0.1, 0.4	1.5	0.4	<0.1
Iraq	0.2	0.1, 0.8	0.4	0.1, 1.4	0.1	0.1, 0.2	0.5	0.2	0.3
Jordan	0.3	0.1, 0.9	0.5	0.1, 1.5	0.1	0.1, 0.2	0.7	0.3	0.2
Kuwait	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.0	<0.1	<0.1
Lebanon	1.5	0.4, 2.7	2.6	0.7, 4.9	0.4	0.1, 0.8	3.2	1.5	1.3
Libya	0.1	0.1, 0.1	0.1	0.1, 0.3	0.1	0.1, 0.1	0.0	<0.1	<0.1
Morocco	0.5	0.1, 1.2	0.9	0.1, 2.1	0.1	0.1, 0.3	1.1	0.6	0.6
Oman	0.9	0.1, 1.9	1.2	0.2, 2.7	0.2	0.1, 0.4	1.9	0.9	0.9
Pakistan	0.1	0.1, 0.5	0.2	0.1, 0.8	0.1	0.1, 0.1	0.2	0.1	0.1
Qatar	1.1	0.3, 2.2	1.4	0.3, 2.6	0.3	0.1, 0.6	2.5	1.1	1.3
Saudi Arabia	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.0	<0.1	<0.1
Somalia	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.0	<0.1	<0.1
Sudan	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.0	<0.1	<0.1
Syrian Arab Republic	0.2	0.1, 0.7	0.4	0.1, 1.3	0.1	0.1, 0.2	0.4	0.2	0.1
Tunisia	2.0	0.5, 3.7	3.6	0.9, 6.6	0.5	0.1, 0.9	4.4	2.0	2.1
United Arab Emirates	2.4	0.9, 4.0	3.1	1.2, 5.2	0.4	0.2, 0.8	5.1	2.3	2.5
Yemen	0.1	0.1, 0.2	0.1	0.1, 0.4	0.1	0.1, 0.1	0.1	<0.1	<0.1
EUROPEAN REGION									
Albania	5.1	3.1, 7.3	8.4	4.9, 11.8	1.9	1.1, 2.7	11.1	5.1	5.4
Andorra	11.1	7.9, 14.1	16.9	12.1, 21.7	5.0	3.5, 6.5	24.0	11.1	10.7
Armenia	5.0	2.9, 7.2	8.7	5.0, 12.6	2.2	1.2, 3.1	10.8	5.2	5.7
Austria	12.0	9.0, 15.1	18.8	14.0, 23.7	5.5	4.0, 7.0	26.0	12.2	11.7
Azerbaijan	2.0	0.6, 3.6	3.5	1.0, 6.4	0.5	0.1, 1.0	4.3	2.5	3.9
Belarus	10.9	8.0, 13.9	18.2	13.3, 23.3	4.9	3.5, 6.3	23.7	11.3	10.7

Table A2.1.1 *continued*

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
Belgium	10.3	7.3, 13.2	16.2	11.4, 20.8	4.7	3.2, 6.1	22.3	10.2	9.8
Bosnia and Herzegovina	6.4	4.1, 8.8	10.7	6.8, 14.9	2.2	1.4, 3.2	13.9	6.3	6.8
Bulgaria	11.9	9.0, 15.1	19.5	14.6, 24.8	4.9	3.6, 6.4	25.9	12.0	12.4
Croatia	8.5	4.9, 12.1	13.8	8.0, 19.7	3.7	2.1, 5.3	18.5	8.5	8.1
Cyprus	8.1	5.4, 10.9	12.7	8.5, 17.3	3.4	2.3, 4.7	17.5	8.0	8.0
Czechia	13.3	10.1, 16.6	21.1	16.0, 26.3	5.8	4.3, 7.5	28.8	13.4	13.2
Denmark	9.4	6.5, 12.4	14.6	10.2, 19.2	4.3	3.0, 5.8	20.4	9.3	8.7
Estonia	11.3	7.5, 15.1	18.4	12.3, 24.8	5.1	3.4, 7.1	24.5	11.1	12.2
Finland	9.2	6.4, 11.9	14.4	10.1, 18.7	4.1	2.8, 5.5	19.9	9.1	8.9
France	11.3	8.2, 14.8	18.0	13.0, 23.6	5.1	3.7, 6.8	24.5	11.3	10.7
Georgia	14.3	9.9, 18.8	24.3	16.7, 31.8	5.9	4.0, 7.8	31.1	15.0	15.3
Germany	12.2	9.1, 15.4	19.2	14.2, 24.3	5.5	4.1, 7.1	26.5	12.1	11.6
Greece	7.1	4.6, 9.7	11.3	7.3, 15.5	3.1	2.0, 4.3	15.4	6.9	6.5
Hungary	10.6	7.3, 14.0	17.2	11.7, 22.8	4.7	3.2, 6.3	23.0	10.4	10.4
Iceland	8.1	5.7, 10.6	12.3	8.6, 16.2	3.7	2.6, 5.0	17.5	7.9	8.4
Ireland	11.7	8.6, 14.9	18.1	13.3, 23.0	5.6	3.9, 7.5	25.4	11.5	10.8
Israel	3.0	1.5, 4.7	4.8	2.4, 7.4	1.3	0.6, 2.0	6.5	3.0	3.1
Italy	8.0	5.4, 10.7	12.7	8.6, 17.0	3.5	2.4, 4.8	17.3	8.0	7.5
Kazakhstan	4.5	2.6, 6.6	8.1	4.6, 11.8	1.4	0.8, 2.1	9.8	4.4	4.2
Kyrgyzstan	5.0	3.0, 7.1	8.7	5.3, 12.4	1.5	0.9, 2.1	10.8	4.5	4.7
Latvia	13.1	9.3, 16.8	21.7	15.5, 28.1	6.0	4.2, 7.8	28.4	13.1	14.3
Lithuania	11.8	8.8, 15.0	19.3	14.5, 24.7	5.4	3.9, 7.1	25.6	11.7	12.1
Luxembourg	11.5	8.6, 14.6	17.6	13.0, 22.5	5.4	3.6, 7.7	25.0	11.5	10.9
Malta	8.5	5.3, 11.5	13.0	8.1, 17.6	3.8	2.3, 5.2	18.5	8.5	9.8
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	10.3	7.5, 13.3	16.9	12.2, 21.7	4.3	3.1, 5.6	22.5	10.4	10.4
Netherlands (Kingdom of the)	9.3	6.4, 12.2	14.5	10.0, 19.1	4.2	2.9, 5.7	20.2	9.2	8.7
North Macedonia	4.6	2.5, 6.7	7.7	4.1, 11.1	1.6	0.9, 2.4	10.0	4.7	4.9
Norway	6.8	4.5, 9.3	10.5	6.9, 14.4	3.1	2.0, 4.4	14.8	6.8	6.9
Poland	11.6	8.3, 14.9	18.7	13.3, 24.0	5.2	3.6, 6.8	25.2	11.8	12.5

Table A2.1.1 *continued*

Country	Total APC (1)						Average daily intake (2)	Projections of total APC	
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
Portugal	10.4	7.5, 13.5	16.9	12.1, 21.8	4.8	3.4, 6.3	22.7	10.6	10.1
Republic of Moldova	11.4	7.9, 15.2	18.5	12.7, 24.8	5.1	3.5, 6.8	24.7	11.3	12.3
Romania	17.0	12.6, 21.4	27.3	20.0, 34.6	7.5	5.5, 9.8	36.9	16.9	17.5
Russian Federation	10.4	7.0, 13.8	17.9	12.0, 23.8	4.2	2.8, 5.6	22.6	10.4	9.8
San Marino	–	–	–	–	–	–	–	–	–
Serbia	7.9	5.3, 10.6	12.9	8.6, 17.4	3.4	2.2, 4.6	17.1	7.9	7.3
Slovakia	10.5	7.5, 13.6	16.7	11.9, 21.9	4.6	3.2, 6.2	22.7	11.3	11.2
Slovenia	11.0	8.0, 13.8	17.3	12.6, 22.0	4.7	3.4, 6.2	23.8	11.6	11.1
Spain	10.9	7.9, 14.0	17.3	12.5, 22.1	4.9	3.5, 6.4	23.7	11.0	11.0
Sweden	9.3	6.3, 12.4	14.4	9.8, 19.3	4.2	2.8, 5.7	20.2	9.3	9.4
Switzerland	10.4	7.6, 13.4	16.2	11.8, 21.1	4.8	3.4, 6.4	22.6	10.6	10.0
Tajikistan	0.9	0.1, 1.7	1.5	0.1, 3.0	0.2	0.1, 0.5	1.9	0.8	0.8
Türkiye	1.8	0.5, 3.3	3.2	0.9, 5.8	0.4	0.1, 0.8	4.0	1.7	1.6
Turkmenistan	2.9	1.5, 4.5	5.1	2.6, 7.9	0.8	0.4, 1.3	6.4	2.8	3.1
Ukraine	8.7	5.6, 11.9	14.6	9.3, 19.9	3.8	2.4, 5.3	18.9	9.0	8.8
United Kingdom of Great Britain and Northern Ireland	10.8	7.8, 13.8	17.0	12.3, 21.7	4.9	3.5, 6.4	23.5	10.8	10.5
Uzbekistan	2.6	1.2, 4.1	4.5	2.1, 7.1	0.7	0.3, 1.1	5.6	2.5	2.8
SOUTH-EAST ASIA REGION									
Bangladesh	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	0.0	<0.1	<0.1
Bhutan	0.2	0.1, 0.7	0.3	0.1, 1.2	0.1	0.1, 0.2	0.4	0.2	0.3
Democratic People's Republic of Korea	4.3	2.4, 6.4	7.0	3.9, 10.3	1.7	1.0, 2.6	9.3	4.3	4.5
India	4.9	2.6, 7.4	8.1	4.4, 12.1	1.6	0.8, 2.4	10.7	5.0	6.7
Indonesia	0.1	0.1, 0.5	0.2	0.1, 0.8	0.1	0.1, 0.1	0.2	0.1	0.1
Maldives	1.4	0.1, 2.9	2.2	0.2, 4.5	0.3	0.1, 0.6	3.1	1.5	1.4
Myanmar	2.1	0.9, 3.5	3.5	1.4, 5.7	0.8	0.3, 1.3	4.6	2.4	3.4
Nepal	1.4	0.3, 2.7	2.4	0.5, 4.7	0.5	0.1, 1.0	3.0	1.5	1.6
Sri Lanka	2.8	1.4, 4.4	4.8	2.3, 7.5	1.0	0.5, 1.6	6.1	2.8	3.3
Thailand	7.8	5.2, 10.6	13.0	8.7, 17.5	3.0	2.0, 4.1	17.0	8.0	7.7
Timor-Leste	0.4	0.1, 1.0	0.6	0.1, 1.7	0.1	0.1, 0.4	0.9	0.2	0.2

Table A2.1.1 *continued*

	Total APC (1)						Average daily intake (2)	Projections of total APC	
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	2025	2030
WESTERN PACIFIC REGION									
Australia	10.1	7.2, 12.9	15.6	11.1, 20.1	4.7	3.3, 6.3	21.9	10.1	9.9
Brunei Darussalam	0.4	0.1, 1.6	0.7	0.1, 2.6	0.1	0.1, 0.5	0.9	0.4	0.4
Cambodia	8.5	5.2, 11.8	13.8	8.5, 19.3	3.4	2.1, 4.8	18.4	8.7	11.0
China	5.7	3.6, 8.1	9.1	5.8, 12.8	2.3	1.4, 3.3	12.4	5.0	5.5
Cook Islands	10.6	6.6, 14.7	17.9	11.2, 24.9	4.0	2.5, 5.7	22.9	10.6	12.5
Fiji	3.4	1.5, 5.5	5.7	2.5, 9.1	1.2	0.5, 1.9	7.5	3.8	4.3
Japan	6.7	4.4, 9.0	10.7	7.1, 14.5	2.9	1.9, 4.0	14.5	6.6	6.3
Kiribati	0.8	0.1, 2.2	1.3	0.1, 3.8	0.3	0.1, 0.8	1.6	0.8	0.7
Lao People's Democratic Republic	11.5	7.8, 15.1	18.1	12.2, 23.8	4.8	3.2, 6.5	25.0	12.2	13.1
Malaysia	0.8	0.1, 1.7	1.3	0.1, 2.9	0.2	0.1, 0.5	1.6	0.8	0.8
Marshall Islands	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	2.1	0.7, 3.7	3.5	1.1, 6.1	0.7	0.2, 1.2	4.6	2.1	1.9
Mongolia	7.9	5.4, 10.6	12.7	8.6, 16.9	3.4	2.3, 4.5	17.2	7.8	8.0
Nauru	2.9	1.4, 4.6	4.8	2.3, 7.5	1.0	0.5, 1.7	6.4	2.9	2.8
New Zealand	9.9	6.9, 12.8	15.4	10.7, 20.0	4.7	3.2, 6.3	21.5	9.9	9.9
Niue	9.3	6.5, 12.2	16.0	11.2, 20.8	3.2	2.2, 4.2	20.3	9.3	10.5
Palau	–	–	–	–	–	–	–	–	–
Papua New Guinea	1.7	0.6, 3.1	2.7	0.9, 5.0	0.6	0.2, 1.0	3.7	1.4	1.4
Philippines	6.2	3.9, 8.6	9.9	6.3, 13.8	2.4	1.5, 3.4	13.4	6.2	6.3
Republic of Korea	8.2	5.7, 10.7	12.8	8.9, 16.8	3.6	2.5, 4.9	17.8	8.1	7.4
Samoa	2.4	0.8, 4.2	3.9	1.3, 6.9	0.8	0.3, 1.4	5.2	2.4	2.2
Singapore	1.9	0.6, 3.3	2.9	0.9, 5.0	0.8	0.3, 1.5	4.1	1.9	1.8
Solomon Islands	1.6	0.4, 3.0	2.7	0.7, 4.9	0.6	0.2, 1.0	3.5	1.6	2.0
Tonga	0.4	0.1, 1.2	0.6	0.1, 2.0	0.1	0.1, 0.4	0.8	0.4	0.5
Tuvalu	1.2	0.3, 2.4	2.1	0.5, 3.9	0.4	0.1, 0.8	2.7	1.2	1.5
Vanuatu	1.9	0.3, 3.6	3.1	0.5, 6.0	0.7	0.1, 1.3	4.1	2.1	2.6
Viet Nam	9.3	5.3, 13.1	15.3	8.7, 21.3	3.8	2.2, 5.3	20.3	9.3	10.7

"–" Data not available
CI = confidence intervals
(1) Total alcohol per capita consumption (APC), 2019 (three-year average of 2017, 2018, 2019), in litres of pure alcohol, 15+ years population
(2) 2019, in the population 15+ years, in grams of pure alcohol

Table A2.1.2 Recorded, unrecorded, tourist APC, and recorded consumption by type of alcoholic beverage

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
AFRICAN REGION							
Algeria	0.6	<0.1	0.0	53.5	32.7	13.8	<0.1
Angola	5.3	0.9	0.0	54.5	7.8	35.0	2.8
Benin	5.2	3.2	0.0	17.0	0.9	4.0	78.1
Botswana	7.4	0.8	-0.1	41.0	4.9	11.1	42.9
Burkina Faso	7.2	2.6	0.0	14.5	0.9	3.2	81.4
Burundi	3.1	1.0	0.0	60.2	0.1	0.1	39.5
Cabo Verde	5.5	0.9	-0.1	43.3	37.4	19.2	<0.1
Cameroon	4.0	6.1	0.0	58.6	2.6	0.2	38.5
Central African Republic	1.4	0.5	0.0	36.6	1.8	1.0	60.6
Chad	0.5	3.2	0.0	69.7	0.8	0.9	28.7
Comoros	0.2	<0.1	0.0	21.7	39.8	38.5	<0.1
Congo	5.6	0.8	0.0	90.1	1.3	8.4	0.2
Côte d'Ivoire	1.9	0.9	0.0	56.3	18.8	8.6	16.2
Democratic Republic of the Congo	1.1	1.0	0.0	48.6	0.8	3.6	47.1
Equatorial Guinea	6.2	0.8	0.0	62.5	18.0	18.6	0.9
Eritrea	0.9	0.4	0.0	42.0	<0.1	<0.1	58.0
Eswatini	7.1	1.1	-0.2	34.7	1.0	2.3	62.0
Ethiopia	1.8	1.5	0.0	55.9	0.1	9.7	34.3
Gabon	6.6	0.7	0.0	81.3	7.9	10.1	0.7
Gambia	0.9	0.3	0.0	17.9	<0.1	1.8	80.3
Ghana	1.9	2.7	0.0	34.5	2.0	21.3	42.2
Guinea	0.3	0.1	0.0	92.2	3.6	4.2	<0.1
Guinea-Bissau	3.3	0.9	0.0	15.4	33.6	15.8	35.1
Kenya	2.3	0.6	0.0	32.1	1.2	35.1	31.6
Lesotho	3.5	1.0	0.1	54.7	2.9	8.9	33.5
Liberia	2.8	0.8	0.0	14.1	1.6	83.7	0.5
Madagascar	0.7	0.3	0.0	68.6	9.5	21.8	<0.1
Malawi	1.8	1.5	0.0	4.2	0.8	9.5	85.5
Mali	3.5	0.8	0.0	2.7	0.2	0.4	96.7
Mauritania	<0.1	<0.1	0.0				

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
Mauritius	7.0	0.8	-0.3	28.6	3.7	67.1	0.5
Mozambique	1.5	0.6	0.0	72.1	10.4	14.4	3.2
Namibia	5.0	0.9	0.0	28.4	41.7	11.9	18.0
Niger	<0.1	<0.1	0.0	41.3	7.9	50.6	0.1
Nigeria	2.9	1.3	0.0	22.1	0.8	13.0	64.1
Rwanda	1.3	0.5	0.0	47.9	2.0	11.3	38.8
Sao Tome and Principe	4.2	0.8	0.0	17.1	77.4	5.4	<0.1
Senegal	0.3	0.1	0.0	66.7	26.3	6.3	0.7
Seychelles	13.3	0.5	-1.8	42.0	20.8	33.7	3.5
Sierra Leone	0.2	<0.1	0.0	68.0	6.6	21.1	4.3
South Africa	7.4	1.4	0.0	56.3	17.7	16.1	9.9
South Sudan	–	–	–	–	–	–	–
Togo	1.0	0.4	0.0	63.1	1.1	20.1	15.6
Uganda	6.6	5.6	0.0	12.9	0.2	9.2	77.7
United Republic of Tanzania	5.1	5.3	0.0	14.0	0.3	7.1	78.6
Zambia	3.2	0.6	0.0	37.9	1.4	8.5	52.2
Zimbabwe	2.8	0.9	0.0	34.1	1.9	12.3	51.7
REGION OF THE AMERICAS							
Antigua and Barbuda	11.2	0.4	-3.1	26.3	32.8	37.6	3.3
Argentina	7.6	0.4	0.0	43.9	37.4	9.1	9.6
Bahamas	9.5	0.3	-5.4	38.7	15.3	42.8	3.2
Barbados	10.0	0.5	-1.0	36.5	14.0	47.9	1.7
Belize	5.9	0.5	-0.8	64.9	11.1	21.5	2.5
Bolivia (Plurinational State of)	3.0	1.1	0.0	74.4	4.3	18.6	2.6
Brazil	6.3	1.4	0.0	63.1	3.8	32.7	0.4
Canada	8.1	1.9	-0.1	44.3	25.7	26.0	4.0
Chile	6.4	0.4	0.0	48.9	25.8	25.3	<0.1
Colombia	4.2	0.7	0.0	73.8	1.4	24.3	0.4
Costa Rica	3.2	0.3	-0.1	72.3	4.9	10.4	12.4
Cuba	4.7	1.3	0.0	37.8	4.7	57.2	0.3
Dominica	6.3	0.5	-0.7	28.7	4.6	65.7	1.1

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
Dominican Republic	5.6	1.3	-0.1	56.0	3.2	39.7	1.0
Ecuador	3.0	0.3	0.0	76.8	2.7	19.4	1.0
El Salvador	2.9	0.4	0.0	50.9	1.9	47.0	0.2
Grenada	8.5	0.5	-0.9	41.4	5.6	49.4	3.6
Guatemala	1.6	<0.1	0.0	55.1	3.0	41.5	0.4
Guyana	5.2	0.2	0.0	53.1	0.7	45.7	0.5
Haiti	3.0	0.4	0.0	17.2	0.9	81.7	0.2
Honduras	2.8	0.4	0.0	57.5	1.3	41.1	0.1
Jamaica	3.5	0.4	-0.3	34.6	8.3	47.3	9.7
Mexico	4.8	1.2	-0.3	85.3	3.8	10.5	0.4
Nicaragua	3.7	0.5	0.0	41.0	0.8	58.1	0.1
Panama	6.3	0.4	-0.1	79.3	1.0	19.3	0.4
Paraguay	5.3	0.5	-0.2	56.8	11.4	30.4	1.4
Peru	5.7	1.8	0.0	53.5	7.9	38.4	0.2
Saint Kitts and Nevis	8.8	0.4	-2.9	42.6	11.5	43.6	2.3
Saint Lucia	10.2	0.5	-1.2	32.7	11.1	49.7	6.6
Saint Vincent and the Grenadines	7.6	<0.1	-0.5	34.2	3.7	59.1	3.0
Suriname	6.3	0.4	0.0	53.9	2.7	41.0	2.3
Trinidad and Tobago	5.7	0.4	0.0	52.1	2.0	44.2	1.7
United States of America	8.9	0.4	0.2	44.9	18.2	36.9	<0.1
Uruguay	5.2	0.4	-0.1	37.4	48.2	14.4	<0.1
Venezuela (Bolivarian Republic of)	2.7	0.3	0.0	58.5	0.5	39.6	1.4
EASTERN MEDITERRANEAN REGION							
Afghanistan	<0.1	<0.1	0.0	6.1	4.4	89.1	0.4
Bahrain	1.5	0.4	-0.2	37.6	12.1	48.7	1.6
Djibouti	0.3	0.1	0.0	28.1	17.4	53.2	1.2
Egypt	0.1	<0.1	0.0	63.6	7.2	28.3	0.9
Iran (Islamic Republic of)	0.1	0.6	0.0	75.4	<0.1	24.6	<0.1
Iraq	0.2	<0.1	0.0	70.3	2.3	26.8	0.7
Jordan	0.3	<0.1	0.0	27.6	1.7	69.3	1.4
Kuwait	<0.1	<0.1	0.0	–	–	–	–

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
Lebanon	1.2	0.3	0.0	32.3	18.1	48.3	1.4
Libya	<0.1	<0.1	0.0	6.8	10.5	32.6	50.2
Morocco	0.5	<0.1	0.0	35.6	46.1	18.0	0.3
Oman	0.5	0.4	0.0	34.5	3.5	61.7	0.2
Pakistan	<0.1	<0.1	0.0	7.7	<0.1	68.7	23.6
Qatar	1.0	0.2	0.0	29.6	7.8	62.0	0.6
Saudi Arabia	<0.1	<0.1	0.0	–	–	–	–
Somalia	<0.1	<0.1	0.0	–	–	–	–
Sudan	<0.1	<0.1	0.0	27.0	30.9	37.6	4.5
Syrian Arab Republic	0.1	<0.1	0.0	12.8	1.3	86.0	<0.1
Tunisia	1.6	0.6	-0.2	62.1	26.5	9.9	1.5
United Arab Emirates	2.1	0.4	-0.1	10.5	7.0	81.4	1.0
Yemen	<0.1	<0.1	0.0	98.0	<0.1	2.0	<0.1
EUROPEAN REGION							
Albania	4.4	0.7	0.0	39.6	24.5	34.1	1.8
Andorra	11.1	0.4	-0.4	31.7	45.5	21.1	1.7
Armenia	4.1	0.9	0.1	20.3	9.5	70.0	0.2
Austria	11.7	0.4	-0.2	52.7	31.1	16.2	<0.1
Azerbaijan	0.9	1.0	0.1	38.3	13.0	47.9	0.7
Belarus	10.1	0.6	0.1	21.3	9.0	45.0	24.7
Belgium	9.2	0.4	0.6	47.6	37.0	12.0	3.4
Bosnia and Herzegovina	5.3	0.9	0.2	76.2	9.2	11.4	3.1
Bulgaria	11.4	0.6	0.0	40.1	16.3	41.7	1.9
Croatia	10.1	0.7	-2.2	47.3	35.1	13.4	4.2
Cyprus	7.9	0.6	-0.5	30.6	27.9	41.6	<0.1
Czechia	12.9	0.4	-0.1	52.7	21.8	25.4	<0.1
Denmark	9.2	0.4	-0.3	37.2	44.9	17.9	<0.1
Estonia	11.8	1.1	-1.7	35.3	16.9	38.2	9.7
Finland	8.3	0.5	0.3	47.2	20.3	16.8	15.7
France	11.5	0.4	-0.6	21.1	56.8	20.5	1.6
Georgia	7.6	6.7	0.0	24.3	41.8	33.6	0.3

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
Germany	11.1	0.4	0.7	50.5	29.9	19.6	<0.1
Greece	6.6	0.7	-0.2	32.0	44.0	22.5	1.5
Hungary	11.0	0.6	-1.0	37.3	28.7	34.0	<0.1
Iceland	7.7	0.5	0.0	56.2	27.6	16.2	<0.1
Ireland	11.1	0.3	0.3	45.4	26.4	20.6	7.6
Israel	2.6	0.4	0.0	49.3	3.0	45.1	2.5
Italy	7.6	0.5	-0.1	25.7	63.7	10.5	<0.1
Kazakhstan	3.9	0.7	0.0	61.5	4.3	34.1	<0.1
Kyrgyzstan	4.4	0.5	0.0	10.2	5.7	84.1	<0.1
Latvia	12.9	1.5	-1.3	40.1	12.1	40.6	7.2
Lithuania	11.0	0.8	0.0	42.5	7.7	45.2	4.6
Luxembourg	11.3	0.2	0.0	35.6	43.6	20.1	0.8
Malta	9.0	0.5	-1.0	42.0	26.3	25.7	5.9
Monaco	–	–	–	–	–	–	–
Montenegro	9.8	0.7	-0.1	38.3	26.3	32.2	3.2
Netherlands (Kingdom of the)	8.3	0.5	0.6	48.1	35.3	16.6	<0.1
North Macedonia	4.0	0.8	-0.2	51.5	25.6	21.9	1.0
Norway	6.0	0.5	0.3	43.8	36.6	16.5	3.0
Poland	10.7	1.4	-0.5	54.2	8.1	37.7	<0.1
Portugal	10.2	0.6	-0.4	25.6	57.7	13.0	3.7
Republic of Moldova	6.3	4.8	0.2	24.2	37.6	35.8	2.5
Romania	10.7	6.2	0.1	49.7	30.6	19.6	<0.1
Russian Federation	7.1	3.3	0.0	41.4	15.5	43.1	<0.1
San Marino	–	–	–	–	–	–	–
Serbia	6.9	0.8	0.1	43.8	19.0	33.8	3.4
Slovakia	10.3	0.6	-0.5	35.9	22.9	41.2	<0.1
Slovenia	10.4	0.6	0.0	44.2	44.9	10.9	<0.1
Spain	10.7	0.5	-0.3	43.2	33.5	21.6	1.7
Sweden	7.1	2.2	0.0	37.0	47.2	14.0	1.8
Switzerland	9.2	0.4	0.7	33.9	46.2	18.6	1.3
Tajikistan	0.9	<0.1	0.0	44.0	1.3	54.2	0.5
Türkiye	1.3	0.6	-0.1	56.8	12.3	30.8	<0.1

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
Turkmenistan	2.9	<0.1	0.0	23.1	40.3	36.6	<0.1
Ukraine	5.5	3.2	0.0	46.0	5.5	47.6	0.9
United Kingdom of Great Britain and Northern Ireland	9.8	0.5	0.5	35.4	34.6	23.6	6.4
Uzbekistan	2.6	<0.1	0.0	7.8	3.3	88.8	<0.1
SOUTH-EAST ASIA REGION							
Bangladesh	<0.1	<0.1	0.0	11.1	2.4	86.3	0.1
Bhutan	<0.1	0.1	0.0	19.7	80.3	<0.1	<0.1
Democratic People's Republic of Korea	3.4	0.9	0.0	3.2	<0.1	96.8	<0.1
India	3.0	1.9	0.0	7.1	<0.1	92.8	<0.1
Indonesia	<0.1	<0.1	0.0	78.2	3.2	17.8	0.8
Maldives	1.3	0.4	-0.3	22.9	40.9	36.0	0.2
Myanmar	1.9	0.2	0.0	26.9	0.9	72.1	<0.1
Nepal	0.8	0.6	0.0	28.3	0.6	71.1	<0.1
Sri Lanka	2.6	0.3	0.0	8.5	0.3	89.8	1.4
Thailand	6.7	1.2	0.0	29.5	2.4	68.0	<0.1
Timor-Leste	0.3	<0.1	0.0	69.1	12.8	17.3	0.8
WESTERN PACIFIC REGION							
Australia	9.5	0.4	0.1	38.9	38.9	13.6	8.6
Brunei Darussalam	0.7	0.1	-0.4	100.0	<0.1	<0.1	<0.1
Cambodia	4.5	4.0	0.0	90.7	0.2	9.1	<0.1
China	4.8	0.9	0.0	28.4	3.0	68.5	<0.1
Cook Islands	12.6	0.6	-2.7	28.8	15.1	56.1	<0.1
Fiji	3.0	0.7	-0.3	53.9	9.1	37.0	<0.1
Japan	6.4	0.2	0.0	21.0	6.1	15.0	57.9
Kiribati	0.4	0.6	-0.3	64.1	<0.1	35.8	<0.1
Lao People's Democratic Republic	7.4	4.2	0.0	49.8	0.5	49.7	<0.1
Malaysia	0.7	0.2	-0.1	73.0	6.4	19.0	1.7
Marshall Islands	–	–	–	–	–	–	–
Micronesia (Federated States of)	1.6	0.6	-0.1	58.5	8.5	33.0	<0.1
Mongolia	7.2	0.7	0.0	29.9	20.4	49.8	<0.1
Nauru	2.4	0.5	0.0	22.0	3.7	74.3	<0.1

Table A2.1.2 *continued*

Country	Recorded APC (1)	Unrecorded APC (1)	Tourist APC (1)	Distribution of recorded consumption (2)			
	Both sexes	Both sexes	Both sexes	Beer	Wine	Spirits	Other
New Zealand	9.1	0.5	0.3	37.1	32.3	17.1	13.5
Niue	8.5	0.8	0.0	50.4	22.2	27.4	<0.1
Palau	–	–	–	–	–	–	–
Papua New Guinea	1.2	0.5	0.0	45.8	4.7	48.6	0.9
Philippines	5.0	1.2	0.0	28.5	0.7	70.6	0.2
Republic of Korea	7.8	0.4	0.0	22.3	2.0	2.8	73.0
Samoa	1.9	0.7	-0.2	82.3	8.7	9.1	<0.1
Singapore	1.8	0.2	-0.1	69.0	15.4	13.7	2.0
Solomon Islands	1.2	0.5	0.0	71.3	4.5	24.2	<0.1
Tonga	0.3	0.1	-0.1	4.3	60.3	35.4	<0.1
Tuvalu	0.9	0.3	0.0	1.5	74.3	24.2	<0.1
Vanuatu	1.7	0.6	-0.4	20.2	24.2	55.5	0.1
Viet Nam	3.4	5.9	0.0	92.4	0.6	6.8	0.2

"–" Data not available

(1) 2019 (three-year average of 2017, 2018, 2019), in litres of pure alcohol, 15+ years population

(2) 2019, recorded alcohol per capita consumption by type of alcoholic beverage (beer, wine, spirits, other), in %

Table A2.1.3 Current drinkers and total APC among drinkers

	Current drinkers (1)						Total APC among drinkers (2)					
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
AFRICAN REGION												
Algeria	8.0	7.2, 9.0	11.6	10.5, 12.9	4.3	3.8, 4.9	7.6	0.6, 17.1	9.2	0.7, 20.4	3.3	0.2, 7.5
Angola	53.1	50.7, 55.7	62.8	60.4, 65.3	43.9	41.4, 46.5	11.3	7.1, 15.6	15.3	9.5, 21.2	5.9	3.6, 8.4
Benin	45.6	43.3, 48.0	55.9	53.6, 58.2	35.5	33.2, 37.9	18.5	11.3, 25.8	24.4	14.9, 34.1	9.3	5.7, 13.2
Botswana	33.4	31.1, 35.8	43.6	41.0, 46.2	23.8	21.7, 26.0	24.9	17.0, 33.6	32.3	21.9, 43.3	12.1	8.1, 16.9
Burkina Faso	30.0	27.6, 32.6	39.5	36.6, 42.4	21.0	18.9, 23.2	32.8	22.3, 44.4	42.1	28.4, 56.8	15.8	10.6, 21.6
Burundi	35.6	33.2, 38.1	45.5	42.8, 48.1	26.2	23.9, 28.4	11.5	6.3, 17.5	14.9	8.0, 22.6	5.8	3.1, 9.0
Cabo Verde	57.1	53.7, 60.0	67.8	64.7, 70.3	46.7	42.9, 49.8	11.0	7.0, 15.5	14.8	9.4, 20.9	5.6	3.6, 8.0
Cameroon	50.9	48.5, 53.3	61.0	58.6, 63.2	41.0	38.5, 43.6	19.8	11.9, 27.5	26.5	16.0, 36.8	10.1	6.0, 14.2
Central African Republic	37.9	35.7, 40.2	47.1	44.8, 49.7	28.7	26.7, 30.9	5.2	2.0, 9.0	6.8	2.6, 11.6	2.7	1.1, 4.7
Chad	22.4	20.6, 24.2	30.2	28.0, 32.4	14.7	13.3, 16.2	16.3	5.4, 28.0	20.5	6.6, 34.6	8.0	2.5, 13.6
Comoros	0.9	0.7, 1.2	1.4	1.1, 1.8	0.5	0.4, 0.6	26.8	<0.1, 87.9	32.3	<0.1, 104.3	11.5	<0.1, 37.7
Congo	54.3	51.8, 56.9	64.1	61.6, 66.6	44.7	42.2, 47.4	11.7	7.4, 15.9	15.7	10.0, 21.5	6.0	3.8, 8.5
Côte d'Ivoire	29.0	26.9, 31.1	37.9	35.4, 40.3	19.9	18.1, 21.7	9.7	4.3, 15.9	12.2	5.3, 20.0	4.8	2.0, 8.1
Democratic Republic of the Congo	43.5	41.3, 45.8	53.6	51.2, 55.9	33.8	31.7, 36.0	4.8	1.5, 8.7	6.3	2.0, 11.4	2.5	0.8, 4.6
Equatorial Guinea	59.6	56.9, 62.4	68.7	66.1, 71.2	48.7	46.0, 51.7	11.7	7.9, 16.0	15.3	10.1, 20.9	5.8	3.7, 8.1
Eritrea	15.4	13.8, 17.3	21.5	19.3, 24.0	9.7	8.5, 11.1	8.0	1.9, 15.8	10.0	2.4, 20.0	3.8	0.9, 7.7
Eswatini	30.7	28.5, 33.0	40.4	37.9, 43.0	21.3	19.3, 23.4	26.5	17.2, 36.6	34.0	22.1, 46.5	12.9	8.2, 18.0
Ethiopia	20.0	18.0, 22.2	27.1	24.7, 29.9	12.9	11.4, 14.5	17.2	7.3, 28.6	21.5	9.1, 35.7	8.3	3.4, 13.8
Gabon	52.7	50.1, 55.6	62.7	60.0, 65.5	42.2	39.5, 45.2	13.8	9.2, 18.8	18.2	12.1, 24.7	6.9	4.6, 9.5
Gambia	21.4	17.3, 26.1	29.6	24.2, 35.8	13.5	10.7, 16.8	5.1	0.8, 10.7	6.3	1.0, 13.3	2.5	0.4, 5.4
Ghana	42.8	40.3, 45.2	53.5	50.9, 55.9	32.4	30.0, 34.7	10.6	4.7, 16.8	13.8	6.1, 21.7	5.4	2.4, 8.5
Guinea	11.1	9.5, 13.0	15.9	13.7, 18.5	6.7	5.6, 7.9	4.3	<0.1, 10.7	5.3	0.1, 13.2	2.0	<0.1, 5.1
Guinea-Bissau	26.5	24.6, 28.4	35.6	33.3, 37.8	18.0	16.5, 19.6	15.3	8.3, 23.0	19.6	10.4, 29.4	7.6	4.0, 11.5
Kenya	29.9	27.8, 32.1	39.2	36.7, 41.6	20.9	19.1, 22.8	9.6	4.5, 15.4	12.2	5.7, 19.4	4.8	2.2, 7.8
Lesotho	23.7	21.6, 25.8	32.3	29.9, 34.8	15.4	13.7, 17.2	19.0	10.8, 28.6	24.0	13.6, 35.6	9.1	5.1, 14.0
Liberia	42.0	39.2, 44.5	52.4	49.4, 55.0	32.0	29.3, 34.4	8.6	4.2, 13.2	11.3	5.5, 17.3	4.4	2.2, 7.0
Madagascar	29.0	26.8, 31.3	38.0	35.3, 40.6	20.1	18.2, 22.1	3.5	0.6, 7.2	4.4	0.8, 9.0	1.8	0.3, 3.6
Malawi	28.3	26.3, 30.5	37.4	35.0, 39.9	20.1	18.4, 22.0	11.6	4.9, 18.8	14.9	6.0, 24.2	5.9	2.4, 9.8
Mali	14.8	12.1, 17.8	20.5	16.9, 24.4	8.9	7.1, 11.1	29.4	15.5, 45.7	36.1	19.5, 56.0	13.6	7.2, 22.4

Table A2.1.3 *continued*

	Current drinkers (1)						Total APC among drinkers (2)					
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Mauritania	1.7	1.3, 2.3	2.6	1.9, 3.4	1.0	0.7, 1.3	–	–	–	–	–	–
Mauritius	45.3	42.7, 48.1	56.7	54.1, 59.4	34.3	31.8, 37.2	16.7	10.9, 22.8	22.0	14.3, 30.1	8.0	5.2, 11.2
Mozambique	23.9	22.0, 26.0	32.2	29.9, 34.7	16.2	14.7, 17.9	8.5	3.0, 15.1	10.9	3.8, 18.9	4.3	1.5, 7.6
Namibia	26.9	24.8, 29.1	36.3	33.9, 38.8	18.4	16.6, 20.3	21.8	13.7, 31.4	28.1	17.7, 39.9	10.7	6.5, 15.7
Niger	9.0	7.2, 11.3	12.8	10.2, 15.8	5.2	4.0, 6.6	1.4	<0.1, 5.7	1.8	<0.1, 7.1	0.7	<0.1, 2.6
Nigeria	25.9	24.1, 27.9	34.4	32.2, 36.7	17.3	15.8, 18.9	16.1	8.5, 24.5	20.2	10.7, 30.8	7.8	4.1, 11.9
Rwanda	33.7	31.3, 36.1	43.7	40.9, 46.3	24.6	22.5, 26.7	5.9	2.1, 10.2	7.6	2.7, 13.1	3.0	1.1, 5.4
Sao Tome and Principe	53.2	49.6, 56.1	63.3	60.0, 66.0	43.1	39.3, 46.3	9.5	5.7, 13.7	12.6	7.5, 18.2	4.9	2.9, 7.2
Senegal	9.7	7.8, 12.0	14.1	11.4, 17.2	5.7	4.5, 7.2	4.2	<0.1, 11.7	5.2	<0.1, 14.5	1.9	<0.1, 5.7
Seychelles	62.9	60.6, 65.3	72.2	70.1, 74.2	52.5	49.7, 55.3	19.1	12.9, 25.1	25.6	17.2, 33.7	9.0	6.1, 12.2
Sierra Leone	17.3	15.1, 19.9	25.5	22.3, 29.1	9.2	7.8, 10.7	1.5	<0.1, 4.5	1.8	<0.1, 5.4	0.7	<0.1, 2.2
South Africa	32.5	30.3, 34.9	43.4	40.9, 46.0	22.6	20.6, 24.7	27.2	18.4, 36.6	35.3	23.8, 47.1	13.1	8.7, 18.2
South Sudan	–	–	–	–	–	–	–	–	–	–	–	–
Togo	36.4	33.4, 39.1	46.4	43.2, 49.3	26.3	23.5, 28.9	3.9	1.1, 7.3	5.0	1.4, 9.3	2.0	0.5, 3.8
Uganda	42.6	39.9, 45.9	52.2	49.4, 55.4	33.5	30.8, 36.8	28.5	18.8, 38.4	38.1	25.1, 51.1	14.4	9.3, 19.9
United Republic of Tanzania	30.1	27.3, 33.4	39.2	35.9, 42.9	21.4	19.1, 24.4	34.5	21.4, 47.5	44.8	27.7, 61.8	16.8	10.3, 23.8
Zambia	37.0	34.4, 39.6	46.9	44.0, 49.6	27.6	25.3, 30.0	10.4	5.8, 15.6	13.5	7.5, 20.4	5.3	3.0, 8.2
Zimbabwe	21.4	19.4, 23.4	29.5	27.1, 31.9	14.6	13.0, 16.4	17.3	8.6, 27.4	22.5	11.1, 35.4	8.7	4.2, 13.9
REGION OF THE AMERICAS												
Antigua and Barbuda	56.5	54.4, 58.5	66.6	64.7, 68.4	47.5	45.2, 49.7	15.1	8.3, 22.2	21.1	11.5, 31.2	7.7	4.2, 11.5
Argentina	70.6	68.7, 72.8	77.9	76.2, 79.7	63.7	61.5, 66.2	11.3	7.8, 15.0	16.1	11.0, 21.3	5.8	3.9, 7.8
Bahamas	52.2	49.9, 54.4	62.3	60.1, 64.3	43.1	40.7, 45.4	8.4	0.5, 16.7	11.6	0.8, 23.0	4.3	0.3, 8.7
Barbados	55.8	53.6, 57.9	66.2	64.3, 68.1	46.4	44.1, 48.7	17.0	11.3, 23.0	23.7	15.6, 32.0	8.4	5.6, 11.6
Belize	50.7	48.4, 52.8	60.2	58.0, 62.3	41.1	38.7, 43.4	11.2	6.2, 16.7	15.0	8.1, 22.1	5.8	3.1, 8.6
Bolivia (Plurinational State of)	62.8	61.2, 64.4	70.3	68.8, 71.8	55.4	53.7, 57.1	6.5	3.3, 9.8	9.0	4.5, 13.6	3.4	1.8, 5.3
Brazil	58.1	54.4, 62.2	67.1	63.6, 70.9	49.6	45.7, 53.9	13.3	8.9, 18.2	18.5	12.2, 25.1	6.7	4.4, 9.2
Canada	69.4	68.1, 70.7	77.6	76.5, 78.8	61.4	59.9, 62.9	14.2	9.7, 18.7	20.1	13.7, 26.5	7.0	4.8, 9.5
Chile	71.0	69.1, 73.2	78.1	76.5, 79.9	64.1	61.9, 66.6	9.6	6.4, 13.0	13.6	8.9, 18.4	4.9	3.2, 6.7
Colombia	42.2	39.7, 44.5	52.0	49.5, 54.4	32.7	30.4, 35.0	11.7	6.7, 16.8	15.5	9.0, 22.3	5.8	3.3, 8.6

Table A2.1.3 *continued*

Country	Current drinkers (1)						Total APC among drinkers (2)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Costa Rica	40.2	37.7, 42.6	49.9	47.3, 52.4	30.6	28.3, 32.9	8.6	4.5, 13.2	11.2	5.9, 17.4	4.2	2.2, 6.7
Cuba	51.1	49.0, 53.1	61.8	59.7, 63.6	40.6	38.5, 42.8	11.8	7.0, 16.8	15.8	9.4, 22.7	5.8	3.4, 8.3
Dominica	51.5	49.4, 53.6	61.7	59.7, 63.7	41.4	39.1, 43.6	11.8	7.1, 16.9	15.7	9.4, 22.6	5.9	3.5, 8.5
Dominican Republic	54.2	52.1, 56.3	63.7	61.7, 65.6	44.8	42.5, 47.0	12.5	7.7, 17.5	16.9	10.3, 23.4	6.3	3.8, 9.0
Ecuador	61.5	59.7, 63.2	69.2	67.6, 70.9	53.9	52.0, 55.7	5.3	2.7, 8.2	7.3	3.8, 11.2	2.8	1.4, 4.4
El Salvador	37.3	34.8, 39.7	47.1	44.5, 49.7	28.8	26.4, 31.1	8.9	4.3, 13.7	11.9	5.8, 18.4	4.6	2.2, 7.3
Grenada	56.0	53.9, 58.1	65.9	63.9, 67.7	46.2	43.9, 48.5	14.5	9.0, 20.1	19.6	12.2, 27.0	7.2	4.5, 10.2
Guatemala	34.6	32.0, 37.2	43.6	40.8, 46.5	25.9	23.5, 28.3	4.7	1.5, 8.1	6.1	2.0, 10.3	2.4	0.8, 4.2
Guyana	47.4	45.2, 49.5	57.4	55.3, 59.5	37.9	35.7, 40.1	11.4	7.2, 15.8	15.3	9.5, 21.3	5.8	3.6, 8.2
Haiti	44.9	42.4, 47.3	55.0	52.6, 57.4	35.1	32.6, 37.5	7.6	4.1, 11.8	10.1	5.4, 15.5	3.9	2.1, 6.1
Honduras	38.1	35.6, 40.6	47.3	44.6, 49.8	28.9	26.5, 31.2	8.4	4.3, 13.0	10.9	5.5, 16.8	4.2	2.1, 6.7
Jamaica	47.3	45.0, 49.6	57.8	55.5, 60.0	37.1	34.7, 39.4	7.6	3.4, 11.7	10.1	4.5, 15.7	3.9	1.7, 6.1
Mexico	44.0	41.5, 46.3	53.6	51.0, 56.0	35.0	32.5, 37.3	13.1	7.5, 18.8	17.6	10.1, 25.2	6.6	3.7, 9.8
Nicaragua	39.3	36.8, 41.8	49.0	46.3, 51.5	30.2	27.8, 32.5	10.5	6.1, 15.4	13.9	8.2, 20.5	5.4	3.1, 8.0
Panama	46.6	44.0, 49.1	55.9	53.3, 58.4	37.5	35.0, 40.0	14.1	9.2, 19.5	18.9	12.4, 25.9	7.0	4.6, 9.9
Paraguay	51.8	48.2, 55.8	60.8	57.2, 64.8	42.9	39.2, 46.9	10.8	6.8, 15.4	14.6	9.1, 20.6	5.5	3.4, 8.0
Peru	66.6	65.3, 67.9	73.6	72.3, 74.9	59.8	58.5, 61.3	11.2	7.0, 15.4	15.7	9.8, 21.8	5.8	3.6, 8.1
Saint Kitts and Nevis	54.9	52.7, 56.9	64.8	62.8, 66.6	45.6	43.4, 47.8	11.6	4.9, 18.8	15.9	6.7, 25.7	5.9	2.5, 9.6
Saint Lucia	58.5	56.3, 60.6	68.1	66.2, 70.0	49.1	46.7, 51.5	16.4	10.6, 22.2	22.5	14.4, 30.2	8.2	5.3, 11.1
Saint Vincent and the Grenadines	53.2	51.0, 55.2	62.8	60.8, 64.7	43.0	40.8, 45.2	13.5	8.8, 18.4	17.9	11.7, 24.5	6.6	4.2, 9.1
Suriname	47.2	45.0, 49.5	57.5	55.2, 59.7	37.1	34.9, 39.6	14.3	9.2, 19.7	19.0	12.4, 25.9	7.1	4.5, 9.7
Trinidad and Tobago	51.7	49.6, 53.7	62.2	60.1, 64.1	41.6	39.5, 43.7	11.8	7.5, 16.4	15.9	10.2, 22.1	5.9	3.7, 8.3
United States of America	71.1	69.7, 72.5	78.6	77.4, 79.8	63.8	62.3, 65.4	13.5	9.6, 17.4	19.1	13.6, 24.8	6.7	4.8, 8.9
Uruguay	67.3	65.2, 69.6	75.5	73.7, 77.5	59.7	57.3, 62.3	8.1	5.0, 11.4	11.5	7.2, 16.2	4.2	2.6, 6.0
Venezuela (Bolivarian Republic of)	37.8	35.3, 40.3	47.3	44.7, 50.0	28.6	26.3, 31.0	7.7	4.1, 11.9	10.1	5.3, 15.8	3.9	2.0, 6.1
EASTERN MEDITERRANEAN REGION												
Afghanistan	2.1	1.6, 2.7	3.0	2.3, 3.9	1.1	0.8, 1.4	0.8	<0.1, 7.1	1.0	<0.1, 9.0	0.3	<0.1, 3.3
Bahrain	21.1	18.1, 24.4	26.5	22.9, 30.4	10.9	9.0, 13.1	7.4	1.1, 14.5	8.4	1.3, 16.4	3.1	0.5, 6.6

Table A2.1.3 *continued*

Country	Current drinkers (1)						Total APC among drinkers (2)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Djibouti	6.0	4.7, 7.6	8.8	7.0, 11.0	3.3	2.6, 4.2	6.7	<0.1, 18.4	8.1	<0.1, 22.5	2.9	<0.1, 8.3
Egypt	7.6	6.8, 8.5	11.0	9.9, 12.3	4.1	3.7, 4.7	2.0	<0.1, 7.2	2.4	<0.1, 8.6	0.9	<0.1, 3.2
Iran (Islamic Republic of)	1.5	1.2, 1.9	2.3	1.7, 2.9	0.8	0.6, 1.0	43.1	1.0, 113.9	51.3	1.2, 132.6	17.9	0.3, 50.1
Iraq	7.0	6.2, 7.8	10.1	9.1, 11.3	3.9	3.5, 4.5	3.5	<0.1, 11.3	4.2	<0.1, 13.6	1.6	<0.1, 5.0
Jordan	7.6	6.8, 8.5	10.8	9.7, 12.0	4.1	3.6, 4.6	4.0	<0.1, 11.8	4.8	<0.1, 14.1	1.8	<0.1, 5.1
Kuwait	0.9	0.6, 1.2	1.2	0.8, 1.6	0.4	0.3, 0.5	–	–	–	–	–	–
Lebanon	13.6	11.2, 16.3	19.6	16.4, 23.2	8.1	6.5, 10.0	10.7	3.0, 20.2	13.2	3.7, 25.1	4.9	1.4, 9.6
Libya	1.4	1.1, 1.7	2.0	1.6, 2.5	0.7	0.5, 0.9	0.6	<0.1, 10.7	0.7	<0.1, 12.7	0.3	<0.1, 4.6
Morocco	7.2	6.5, 8.1	10.6	9.5, 11.8	3.9	3.4, 4.4	6.8	<0.1, 17.3	8.2	<0.1, 20.6	3.0	<0.1, 7.7
Oman	14.7	13.1, 16.6	18.4	16.5, 20.7	6.9	6.0, 7.9	5.9	0.8, 13.4	6.5	0.9, 14.7	2.4	0.3, 5.5
Pakistan	1.6	1.2, 2.1	2.2	1.6, 2.9	1.0	0.7, 1.3	6.6	<0.1, 31.6	8.1	<0.1, 39.3	2.9	<0.1, 14.5
Qatar	32.7	27.5, 37.7	37.2	31.5, 42.5	17.8	14.2, 21.6	3.5	0.8, 6.9	3.8	0.8, 7.4	1.5	0.3, 3.4
Saudi Arabia	1.9	1.5, 2.3	2.6	2.1, 3.2	0.9	0.7, 1.1	–	–	–	–	–	–
Somalia	0.9	0.7, 1.2	1.4	1.0, 1.8	0.5	0.4, 0.7	–	–	–	–	–	–
Sudan	7.0	6.1, 7.9	10.1	8.9, 11.4	3.9	3.4, 4.5	<0.1	<0.1, 1.1	<0.1	<0.1, 1.4	<0.1	<0.1, 0.5
Syrian Arab Republic	1.5	1.2, 1.9	2.3	1.8, 2.8	0.8	0.6, 1.0	12.9	<0.1, 48.5	15.6	<0.1, 58.9	5.5	<0.1, 20.7
Tunisia	8.9	8.0, 10.0	13.1	11.8, 14.6	4.9	4.3, 5.5	22.6	5.9, 42.2	27.6	7.3, 51.9	9.9	2.5, 19.0
United Arab Emirates	10.6	9.2, 12.0	12.8	11.1, 14.4	4.7	3.9, 5.5	22.7	9.0, 38.3	24.5	9.7, 41.8	9.0	3.3, 16.9
Yemen	1.1	0.9, 1.5	1.7	1.3, 2.2	0.6	0.5, 0.8	2.4	<0.1, 19.7	2.9	<0.1, 24.2	1.0	<0.1, 8.7
EUROPEAN REGION												
Albania	50.2	45.0, 56.1	63.1	57.3, 69.6	37.4	32.8, 42.8	10.2	6.0, 14.8	13.2	7.8, 19.2	5.0	2.9, 7.5
Andorra	83.5	82.3, 84.6	87.6	86.7, 88.6	79.2	77.8, 80.4	13.3	9.4, 17.0	19.3	13.8, 24.9	6.3	4.5, 8.2
Armenia	50.6	48.2, 52.9	62.2	59.9, 64.3	41.8	39.2, 44.2	9.9	5.7, 14.5	14.1	8.2, 20.5	5.2	3.0, 7.7
Austria	80.1	79.0, 81.2	86.7	85.9, 87.5	73.8	72.4, 75.1	15.0	11.2, 18.9	21.7	16.2, 27.5	7.4	5.4, 9.6
Azerbaijan	15.6	13.3, 18.2	22.4	19.1, 25.8	9.4	7.8, 11.2	13.2	3.6, 24.8	16.4	4.5, 31.1	6.0	1.5, 11.6
Belarus	69.1	67.0, 71.4	78.3	76.4, 80.2	61.6	59.2, 64.1	15.8	11.6, 20.3	23.3	17.0, 29.8	8.0	5.8, 10.4
Belgium	77.7	76.5, 78.8	84.9	84.1, 85.8	70.7	69.3, 72.1	13.2	9.3, 17.1	19.0	13.4, 24.5	6.6	4.6, 8.7
Bosnia and Herzegovina	43.5	40.6, 46.7	55.8	52.7, 59.0	31.8	29.0, 34.9	14.6	9.3, 20.4	19.2	12.1, 26.7	7.0	4.4, 10.1
Bulgaria	66.2	64.6, 67.9	76.5	75.2, 77.9	56.7	54.7, 58.7	18.0	13.5, 23.0	25.5	19.3, 32.5	8.7	6.4, 11.4
Croatia	68.9	67.4, 70.3	78.3	77.1, 79.5	60.2	58.5, 61.8	12.4	7.1, 17.7	17.6	10.2, 25.2	6.1	3.5, 8.9

Table A2.1.3 *continued*

Country	Current drinkers (1)						Total APC among drinkers (2)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Cyprus	68.5	66.6, 70.5	78.2	76.6, 79.8	58.9	56.7, 61.3	11.8	7.8, 16.1	16.3	10.8, 22.1	5.9	3.8, 8.1
Czechia	75.2	73.8, 76.6	82.7	81.7, 83.9	68.0	66.3, 69.6	17.7	13.4, 22.1	25.5	19.3, 31.8	8.6	6.3, 11.2
Denmark	78.1	76.9, 79.2	85.0	84.1, 85.9	71.3	69.9, 72.8	12.0	8.3, 15.9	17.2	11.9, 22.6	6.0	4.1, 8.2
Estonia	74.6	72.8, 76.5	82.4	80.9, 83.9	67.9	65.7, 70.1	15.1	10.1, 20.3	22.3	14.9, 30.1	7.5	5.0, 10.5
Finland	78.0	76.9, 79.2	85.3	84.5, 86.2	71.0	69.6, 72.4	11.7	8.2, 15.2	16.8	11.8, 21.9	5.8	4.0, 7.7
France	77.1	76.0, 78.3	84.6	83.8, 85.5	70.2	68.8, 71.7	14.7	10.6, 19.2	21.3	15.4, 28.0	7.3	5.3, 9.7
Georgia	56.5	54.0, 59.3	67.3	65.0, 69.7	47.4	44.7, 50.5	25.6	17.5, 33.6	36.4	25.0, 47.9	12.5	8.5, 16.8
Germany	79.1	78.1, 80.2	86.1	85.3, 86.9	72.4	71.1, 73.8	15.4	11.4, 19.5	22.3	16.5, 28.2	7.6	5.6, 9.8
Greece	71.4	70.0, 72.7	80.7	79.6, 81.8	62.6	60.9, 64.2	9.9	6.4, 13.6	14.0	9.0, 19.1	4.9	3.1, 6.8
Hungary	71.9	70.6, 73.2	80.7	79.7, 81.8	64.0	62.4, 65.5	14.7	10.0, 19.5	21.3	14.5, 28.4	7.3	4.9, 9.9
Iceland	79.6	78.4, 80.7	85.9	85.0, 86.8	73.0	71.5, 74.4	10.1	7.2, 13.4	14.3	10.1, 18.9	5.1	3.5, 6.8
Ireland	83.4	82.2, 84.6	88.3	87.3, 89.2	78.8	77.2, 80.2	14.0	10.4, 17.9	20.4	15.1, 26.2	7.1	5.0, 9.6
Israel	60.3	57.8, 62.9	70.9	68.6, 73.1	50.1	47.2, 53.0	5.0	2.5, 7.8	6.7	3.4, 10.5	2.6	1.3, 4.0
Italy	74.8	73.6, 76.0	83.3	82.3, 84.2	66.9	65.4, 68.3	10.7	7.3, 14.3	15.3	10.4, 20.4	5.3	3.6, 7.2
Kazakhstan	24.5	22.0, 27.3	33.9	30.7, 37.3	16.3	14.3, 18.6	18.3	10.4, 27.1	23.7	13.4, 35.1	8.7	4.8, 13.4
Kyrgyzstan	18.2	15.7, 20.6	25.4	22.2, 28.7	11.4	9.7, 13.2	26.4	16.0, 39.1	33.3	20.2, 48.1	12.4	7.4, 18.7
Latvia	75.2	73.5, 76.9	83.0	81.7, 84.3	68.8	66.8, 70.7	17.4	12.5, 22.4	26.1	18.7, 33.7	8.7	6.2, 11.4
Lithuania	74.9	73.1, 76.7	82.6	81.2, 84.0	68.4	66.2, 70.5	15.7	11.8, 20.2	23.4	17.5, 30.1	7.9	5.8, 10.4
Luxembourg	84.5	82.9, 86.0	88.9	87.7, 90.1	80.1	78.1, 81.9	13.6	10.3, 17.4	19.8	14.6, 25.4	6.8	4.5, 9.7
Malta	79.0	77.9, 80.1	86.0	85.2, 86.8	71.6	70.2, 73.0	10.8	6.7, 14.7	15.2	9.4, 20.6	5.3	3.3, 7.3
Monaco	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	62.5	60.5, 64.5	72.9	71.2, 74.6	52.8	50.6, 55.1	16.6	11.9, 21.4	23.2	16.7, 29.9	8.2	5.8, 10.7
Netherlands (Kingdom of the)	77.4	76.2, 78.6	84.5	83.5, 85.4	70.5	69.0, 72.0	12.0	8.3, 15.8	17.2	11.9, 22.6	6.0	4.1, 8.1
North Macedonia	42.9	39.9, 46.1	54.7	51.5, 57.9	31.3	28.5, 34.4	10.8	5.8, 15.9	14.1	7.7, 20.6	5.2	2.7, 8.1
Norway	76.9	75.5, 78.3	84.0	82.9, 85.0	69.9	68.0, 71.5	8.8	5.8, 12.1	12.5	8.2, 17.1	4.4	2.9, 6.3
Poland	73.7	72.4, 74.9	81.9	80.9, 82.9	66.1	64.6, 67.6	15.8	11.3, 20.4	22.8	16.2, 29.5	7.8	5.5, 10.5
Portugal	78.1	77.0, 79.2	85.7	84.9, 86.5	71.4	70.0, 72.7	13.4	9.7, 17.4	19.7	14.1, 25.7	6.8	4.8, 8.9
Republic of Moldova	69.6	67.5, 71.9	78.4	76.5, 80.3	62.0	59.5, 64.5	16.3	11.3, 22.1	23.6	16.2, 31.8	8.2	5.6, 11.1
Romania	76.0	73.9, 78.2	83.6	82.0, 85.3	69.0	66.5, 71.7	22.4	16.5, 28.2	32.7	23.9, 41.5	10.9	7.9, 14.4
Russian Federation	58.4	56.5, 60.3	71.4	69.7, 73.2	47.5	45.5, 49.7	17.9	12.0, 23.7	25.2	16.9, 33.4	8.8	5.8, 11.8
San Marino	–	–	–	–	–	–	–	–	–	–	–	–

Table A2.1.3 *continued*

Country	Current drinkers (1)						Total APC among drinkers (2)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Serbia	65.2	63.6, 66.7	75.6	74.4, 76.9	55.7	53.9, 57.5	12.1	8.0, 16.3	17.1	11.3, 23.0	6.0	4.0, 8.2
Slovakia	73.5	72.2, 74.7	81.7	80.7, 82.7	65.7	64.2, 67.2	14.4	10.3, 18.9	20.6	14.7, 27.1	7.1	5.0, 9.5
Slovenia	72.5	71.2, 73.9	80.7	79.6, 81.8	64.4	62.8, 66.0	15.3	11.1, 19.4	21.6	15.6, 27.5	7.4	5.3, 9.8
Spain	78.7	77.7, 79.8	86.0	85.2, 86.7	71.9	70.6, 73.2	13.9	10.0, 17.8	20.1	14.5, 25.7	6.8	4.9, 8.9
Sweden	77.3	76.1, 78.5	84.5	83.6, 85.4	70.1	68.7, 71.6	12.0	8.2, 16.1	17.1	11.5, 22.9	6.0	4.0, 8.1
Switzerland	80.4	79.2, 81.6	86.6	85.7, 87.5	74.3	72.8, 75.8	13.0	9.5, 16.8	18.7	13.7, 24.4	6.4	4.6, 8.6
Tajikistan	11.9	10.1, 14.1	16.8	14.4, 19.7	7.1	5.9, 8.5	7.3	0.6, 14.7	8.9	0.7, 18.2	3.3	0.3, 7.1
Türkiye	10.3	9.3, 11.4	14.9	13.5, 16.5	5.7	5.1, 6.4	17.3	5.0, 31.6	21.1	6.0, 38.5	7.6	2.1, 14.3
Turkmenistan	16.8	14.4, 19.2	23.5	20.5, 26.8	10.3	8.7, 12.1	17.5	8.8, 27.6	21.8	11.2, 34.7	8.1	4.1, 13.2
Ukraine	66.0	63.6, 68.3	76.1	74.0, 78.2	57.6	54.9, 60.1	13.2	8.5, 18.1	19.2	12.2, 26.4	6.7	4.2, 9.2
United Kingdom of Great Britain and Northern Ireland	78.3	77.2, 79.4	85.3	84.5, 86.1	71.5	70.2, 72.9	13.8	10.0, 17.7	19.9	14.4, 25.5	6.9	4.9, 9.0
Uzbekistan	14.8	12.5, 17.2	20.9	17.8, 24.2	8.8	7.3, 10.5	17.5	7.9, 28.5	21.6	10.1, 34.6	8.0	3.6, 13.3
SOUTH-EAST ASIA REGION												
Bangladesh	5.4	4.4, 6.6	7.9	6.5, 9.7	2.9	2.4, 3.6	<0.1	<0.1, 1.5	0.1	<0.1, 1.8	<0.1	<0.1, 0.7
Bhutan	30.6	28.0, 33.1	39.9	36.9, 42.8	19.8	17.7, 22.0	0.7	<0.1, 2.5	0.8	<0.1, 3.0	0.3	<0.1, 1.2
Democratic People's Republic of Korea	59.9	55.6, 64.4	72.4	68.7, 76.1	48.0	43.2, 53.3	7.2	4.1, 10.8	9.7	5.5, 14.5	3.6	2.0, 5.6
India	31.2	28.6, 34.0	40.9	38.0, 44.2	20.8	18.8, 23.2	15.9	8.5, 24.2	19.9	10.8, 29.9	7.6	3.9, 11.6
Indonesia	9.8	8.2, 11.8	14.2	11.9, 17.0	5.4	4.4, 6.6	1.1	<0.1, 4.9	1.4	<0.1, 5.8	0.5	<0.1, 2.1
Maldives	6.0	4.6, 7.8	8.2	6.4, 10.6	2.7	2.1, 3.6	24.5	1.8, 52.2	27.8	1.9, 60.2	10.0	0.7, 21.9
Myanmar	39.2	36.7, 41.8	50.2	47.6, 52.7	28.6	26.1, 31.1	5.5	2.2, 9.1	7.1	2.9, 11.7	2.7	1.1, 4.6
Nepal	26.7	24.5, 28.9	36.2	33.5, 38.7	18.7	16.8, 20.6	5.2	1.2, 10.2	6.7	1.5, 13.3	2.6	0.6, 5.3
Sri Lanka	37.3	34.9, 39.9	48.7	46.1, 51.4	27.0	24.7, 29.5	7.6	3.6, 12.0	9.9	4.8, 15.7	3.8	1.8, 6.1
Thailand	51.0	48.7, 53.5	62.5	60.2, 64.8	40.3	37.9, 43.0	15.4	10.2, 20.9	20.9	13.9, 28.3	7.6	5.0, 10.4
Timor-Leste	34.6	31.5, 37.6	43.9	40.7, 47.2	24.9	22.1, 27.9	1.2	<0.1, 3.0	1.5	<0.1, 3.8	0.6	<0.1, 1.5
WESTERN PACIFIC REGION												
Australia	80.5	79.2, 81.7	86.4	85.4, 87.3	74.7	73.2, 76.2	12.5	8.9, 16.1	18.1	12.9, 23.3	6.3	4.4, 8.4
Brunei Darussalam	35.5	31.4, 39.9	45.3	40.8, 50.1	24.9	21.2, 29.0	1.2	<0.1, 4.7	1.5	<0.1, 5.9	0.6	<0.1, 2.2
Cambodia	52.7	50.2, 55.2	63.5	61.2, 65.8	42.5	39.8, 45.2	16.2	10.0, 22.7	21.9	13.4, 30.8	8.1	4.9, 11.6
China	61.2	57.0, 65.6	73.3	69.7, 76.9	48.8	44.0, 54.1	9.1	5.7, 12.9	12.2	7.7, 17.3	4.5	2.8, 6.5

Table A2.1.3 *continued*

Country	Current drinkers (1)						Total APC among drinkers (2)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	95% CI	Males	95% CI	Females	95% CI
Cook Islands	42.7	40.0, 45.4	53.3	50.6, 56.0	33.3	30.7, 36.0	24.7	15.5, 34.7	33.6	20.9, 47.1	12.1	7.5, 17.3
Fiji	31.0	29.1, 33.1	40.4	38.1, 42.6	21.7	20.0, 23.5	11.4	5.0, 18.3	14.5	6.4, 23.2	5.5	2.4, 8.9
Japan	67.9	66.2, 69.4	76.8	75.5, 78.1	59.5	57.6, 61.3	9.8	6.5, 13.3	14.0	9.2, 18.9	4.8	3.2, 6.7
Kiribati	25.3	23.3, 27.3	34.1	31.8, 36.4	17.3	15.7, 19.1	3.0	<0.1, 8.7	3.9	<0.1, 11.2	1.5	<0.1, 4.4
Lao People's Democratic Republic	58.8	56.3, 61.4	68.1	66.0, 70.4	49.5	46.7, 52.4	19.9	13.4, 26.2	27.0	18.1, 35.5	10.0	6.7, 13.5
Malaysia	16.6	14.3, 19.5	23.1	20.1, 26.8	9.8	8.2, 11.9	4.6	<0.1, 10.7	5.6	<0.1, 13.1	2.1	<0.1, 5.1
Marshall Islands	–	–	–	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	28.0	26.1, 29.9	36.6	34.6, 38.8	19.3	17.7, 21.0	7.6	2.5, 13.2	9.6	3.1, 16.7	3.7	1.2, 6.6
Mongolia	56.0	53.6, 58.3	65.6	63.5, 67.7	46.7	44.1, 49.2	14.1	9.6, 19.0	19.3	13.1, 25.9	7.1	4.9, 9.8
Nauru	32.7	30.7, 34.7	41.9	39.7, 44.2	23.3	21.5, 25.2	9.0	4.4, 14.3	11.5	5.6, 18.2	4.5	2.1, 7.2
New Zealand	80.3	79.1, 81.5	86.3	85.4, 87.2	74.5	73.0, 76.0	12.3	8.6, 16.0	17.8	12.4, 23.4	6.3	4.3, 8.4
Niue	39.4	36.9, 42.0	51.1	48.5, 53.9	28.8	26.4, 31.3	23.6	16.5, 31.3	31.2	21.9, 41.3	11.0	7.5, 14.8
Palau	–	–	–	–	–	–	–	–	–	–	–	–
Papua New Guinea	27.7	25.8, 29.7	35.8	33.7, 38.1	19.0	17.4, 20.8	6.0	1.9, 11.0	7.5	2.4, 13.7	2.9	1.0, 5.4
Philippines	47.2	44.8, 49.7	57.6	55.2, 60.0	36.7	34.2, 39.2	13.1	8.4, 18.4	17.3	10.9, 24.2	6.6	4.2, 9.2
Republic of Korea	72.7	71.3, 74.1	80.4	79.3, 81.5	65.1	63.4, 66.8	11.2	7.8, 14.8	15.9	11.0, 20.9	5.6	3.8, 7.5
Samoa	29.3	27.5, 31.3	38.1	36.0, 40.2	20.4	18.8, 22.2	8.2	2.7, 14.3	10.4	3.4, 18.3	4.0	1.3, 7.2
Singapore	63.4	59.9, 66.7	71.5	68.4, 74.4	54.5	50.6, 58.2	3.0	1.0, 5.2	4.0	1.3, 7.0	1.5	0.5, 2.8
Solomon Islands	27.0	25.2, 29.0	35.1	33.0, 37.3	18.7	17.1, 20.5	5.9	1.6, 10.8	7.5	2.0, 13.8	2.9	0.8, 5.4
Tonga	24.3	22.4, 26.3	32.5	30.2, 34.8	16.6	15.0, 18.4	1.5	<0.1, 4.8	2.0	<0.1, 6.1	0.8	<0.1, 2.4
Tuvalu	27.0	25.1, 29.0	35.6	33.4, 37.8	17.9	16.4, 19.7	4.6	1.2, 8.9	5.8	1.5, 11.1	2.2	0.5, 4.3
Vanuatu	28.3	26.4, 30.2	36.9	34.8, 39.0	19.8	18.2, 21.6	6.7	1.0, 13.1	8.6	1.2, 16.8	3.4	0.5, 6.7
Viet Nam	55.7	53.2, 58.1	66.6	64.4, 68.8	45.4	42.7, 48.0	16.8	9.6, 23.8	22.9	13.2, 32.4	8.3	4.8, 11.9

"–" Data not available

CI = confidence intervals

(1) 2019, alcohol use in the past 12 months, in the population 15+ years, in %

(2) 2019, in litres of pure alcohol, 15+ years population

Table A2.1.4 Heavy episodic drinking (HED) and heavy continuous drinkers in the population

	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
AFRICAN REGION									
Algeria	1.7	1.5, 2.0	2.9	2.6, 3.3	0.6	0.5, 0.7	0.2	0.4	<0.1
Angola	44.5	42.8, 46.3	57.0	55.4, 58.6	33.1	31.2, 35.0	3.0	5.9	0.3
Benin	23.5	22.1, 24.8	34.2	32.4, 35.9	13.4	12.4, 14.5	6.7	11.9	1.7
Botswana	15.8	14.7, 16.9	24.2	22.7, 25.7	8.4	7.6, 9.1	6.7	11.6	2.0
Burkina Faso	15.2	14.2, 16.1	23.8	22.5, 25.1	7.8	7.2, 8.4	7.3	12.2	2.6
Burundi	18.8	17.8, 19.8	27.5	26.2, 28.8	10.6	9.9, 11.3	2.5	4.8	0.2
Cabo Verde	38.1	36.5, 39.7	50.6	48.9, 52.4	25.6	24.0, 27.1	3.7	7.2	0.4
Cameroon	27.1	25.6, 28.6	38.6	36.7, 40.5	16.0	14.9, 17.2	7.8	13.6	2.2
Central African Republic	27.4	25.4, 29.4	37.9	35.6, 40.2	17.6	15.9, 19.2	0.3	0.6	<0.1
Chad	10.4	9.8, 11.1	16.3	15.4, 17.3	5.0	4.6, 5.4	2.6	4.9	0.4
Comoros	0.3	0.3, 0.4	0.6	0.5, 0.6	0.1	<0.1, 0.1	0.2	0.4	<0.1
Congo	44.2	42.3, 46.0	56.5	54.7, 58.2	32.3	30.2, 34.3	3.8	7.3	0.5
Côte d'Ivoire	12.9	12.0, 13.7	19.4	18.2, 20.6	6.5	6.0, 7.1	1.5	2.9	<0.1
Democratic Republic of the Congo	33.7	31.8, 35.6	45.1	43.0, 47.2	22.9	21.2, 24.7	0.2	0.5	<0.1
Equatorial Guinea	45.3	42.9, 47.6	56.5	54.2, 58.7	31.9	29.4, 34.5	4.8	8.4	0.6
Eritrea	5.6	5.1, 6.0	9.2	8.5, 9.8	2.5	2.3, 2.8	0.5	1.0	<0.1
Eswatini	15.1	14.1, 16.1	23.1	21.7, 24.5	7.8	7.1, 8.5	6.3	11.0	1.9
Ethiopia	8.2	7.6, 8.8	13.1	12.3, 13.9	3.8	3.5, 4.1	2.9	5.3	0.5
Gabon	38.0	35.6, 40.4	49.8	47.4, 52.3	25.7	23.4, 28.1	4.9	8.8	0.7
Gambia	7.0	6.3, 7.7	11.3	10.1, 12.4	3.3	3.0, 3.7	<0.1	0.1	<0.1
Ghana	20.6	19.3, 21.8	29.9	28.3, 31.6	11.7	10.8, 12.6	2.6	5.1	0.2
Guinea	4.2	3.8, 4.5	7.1	6.6, 7.6	1.8	1.7, 2.0	<0.1	0.1	<0.1
Guinea-Bissau	12.1	11.3, 12.9	19.1	18.0, 20.2	6.2	5.7, 6.7	2.8	5.4	0.4
Kenya	13.0	12.2, 13.8	19.6	18.5, 20.7	6.8	6.3, 7.3	1.5	2.9	<0.1
Lesotho	11.2	10.4, 12.0	17.4	16.3, 18.6	5.5	5.0, 6.0	3.5	6.6	0.6
Liberia	21.0	19.7, 22.3	30.3	28.6, 32.0	12.1	11.1, 13.0	1.6	3.1	<0.1
Madagascar	12.5	11.5, 13.4	18.4	17.1, 19.7	6.8	6.2, 7.4	<0.1	<0.1	<0.1
Malawi	12.7	11.9, 13.4	19.7	18.7, 20.7	6.7	6.2, 7.2	2.2	4.3	0.2
Mali	7.3	6.7, 7.8	11.8	11.0, 12.6	3.2	2.9, 3.5	3.3	5.8	0.9
Mauritania	0.7	0.6, 0.7	1.2	1.1, 1.3	0.2	0.2, 0.3	<0.1	<0.1	<0.1

Table A2.1.4 *continued*

	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Mauritius	16.3	15.0, 17.6	24.2	22.4, 26.0	8.6	7.8, 9.5	5.7	10.6	1.0
Mozambique	9.6	9.0, 10.3	15.2	14.3, 16.1	4.9	4.5, 5.3	0.9	1.9	<0.1
Namibia	12.7	11.8, 13.6	20.0	18.8, 21.2	6.5	6.0, 7.1	4.5	8.4	1.1
Niger	2.9	2.5, 3.2	4.7	4.2, 5.2	1.2	1.0, 1.3	<0.1	<0.1	<0.1
Nigeria	12.1	11.3, 12.8	18.5	17.5, 19.6	5.9	5.4, 6.4	3.1	5.7	0.4
Rwanda	17.5	16.6, 18.5	26.1	24.8, 27.4	10.1	9.3, 10.8	1.4	2.8	<0.1
Sao Tome and Principe	36.2	34.6, 37.7	48.2	46.5, 49.9	23.7	22.3, 25.2	2.8	5.3	0.2
Senegal	3.5	3.2, 3.9	6.1	5.6, 6.6	1.5	1.4, 1.7	<0.1	<0.1	<0.1
Seychelles	33.3	31.4, 35.3	44.2	42.0, 46.5	20.3	18.7, 22.0	9.4	15.7	2.2
Sierra Leone	4.9	4.4, 5.5	8.2	7.3, 9.0	2.1	1.8, 2.3	<0.1	<0.1	<0.1
South Africa	13.5	12.4, 14.5	21.1	19.6, 22.6	6.8	6.2, 7.5	6.9	12.2	2.1
South Sudan	–	–	–	–	–	–	–	–	–
Togo	15.0	13.9, 16.2	21.8	20.2, 23.4	8.4	7.6, 9.1	<0.1	0.1	<0.1
Uganda	22.0	20.8, 23.2	32.8	31.2, 34.3	12.5	11.7, 13.4	9.1	15.0	3.5
United Republic of Tanzania	13.7	12.8, 14.6	21.6	20.4, 22.9	6.9	6.4, 7.5	7.5	12.4	2.9
Zambia	22.3	21.3, 23.4	32.2	30.9, 33.4	13.4	12.6, 14.2	2.1	4.1	0.2
Zimbabwe	10.2	9.5, 10.9	16.8	15.7, 17.9	5.2	4.8, 5.7	3.0	6.0	0.6
REGION OF THE AMERICAS									
Antigua and Barbuda	28.3	26.6, 30.0	39.9	37.9, 41.9	17.8	16.4, 19.3	6.1	11.7	1.2
Argentina	30.1	27.4, 32.9	41.1	37.8, 44.3	18.5	16.3, 20.7	4.6	8.8	0.5
Bahamas	23.3	21.6, 25.1	33.3	31.1, 35.4	14.3	12.9, 15.6	2.0	4.2	0.1
Barbados	29.5	27.8, 31.2	41.2	39.2, 43.2	18.6	17.2, 20.0	7.2	13.4	1.6
Belize	24.2	22.6, 25.7	33.9	32.0, 35.8	14.3	13.1, 15.5	3.4	6.4	0.4
Bolivia (Plurinational State of)	31.3	28.3, 34.4	41.7	38.2, 45.2	19.8	17.1, 22.4	1.1	2.3	<0.1
Brazil	20.9	18.8, 23.0	29.8	27.0, 32.6	11.8	10.3, 13.3	8.0	14.3	2.1
Canada	28.4	26.8, 30.1	39.3	37.3, 41.2	17.1	15.8, 18.4	7.0	12.9	1.2
Chile	30.3	27.5, 33.0	41.2	38.0, 44.5	18.6	16.3, 20.8	4.4	8.5	0.5
Colombia	17.5	16.2, 18.8	25.2	23.5, 26.9	9.9	8.9, 10.8	3.1	6.0	0.3
Costa Rica	15.5	14.2, 16.8	22.3	20.6, 24.0	8.7	7.8, 9.6	1.4	2.8	<0.1
Cuba	25.3	23.8, 26.9	35.4	33.5, 37.2	15.1	13.9, 16.4	3.9	7.5	0.4
Dominica	24.8	23.3, 26.4	34.7	32.8, 36.6	14.8	13.6, 16.0	3.6	6.9	0.4

Table A2.1.4 *continued*

	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Dominican Republic	26.5	24.9, 28.1	36.9	34.9, 38.8	16.0	14.7, 17.3	4.6	8.5	0.6
Ecuador	29.7	26.6, 32.8	39.8	36.2, 43.3	18.5	16.0, 21.1	0.7	1.3	<0.1
El Salvador	14.9	13.7, 16.1	22.4	20.8, 24.0	8.6	7.7, 9.4	1.7	3.5	0.1
Grenada	28.2	26.6, 29.9	39.0	37.1, 41.0	17.3	15.9, 18.6	6.0	10.9	1.0
Guatemala	12.0	10.9, 13.0	17.6	16.1, 19.0	6.7	5.9, 7.4	0.2	0.4	<0.1
Guyana	16.4	15.1, 17.8	24.3	22.5, 26.2	9.1	8.2, 10.0	3.3	6.4	0.4
Haiti	19.8	18.4, 21.3	28.4	26.6, 30.2	11.6	10.5, 12.6	1.1	2.2	<0.1
Honduras	14.9	13.7, 16.1	21.5	19.9, 23.1	8.2	7.4, 9.0	1.4	2.8	<0.1
Jamaica	20.7	19.2, 22.1	29.4	27.6, 31.2	12.1	11.0, 13.1	1.3	2.7	<0.1
Mexico	18.7	17.3, 20.1	27.1	25.2, 28.9	10.8	9.7, 11.8	4.0	7.7	0.6
Nicaragua	15.9	14.7, 17.1	23.2	21.6, 24.9	8.9	8.1, 9.8	2.2	4.4	0.2
Panama	20.2	18.5, 21.8	28.6	26.5, 30.6	11.6	10.4, 12.8	4.6	8.5	0.7
Paraguay	16.3	14.5, 18.1	23.3	20.9, 25.7	8.9	7.7, 10.1	3.4	6.4	0.4
Peru	37.1	33.9, 40.4	48.6	45.2, 52.1	24.9	21.9, 27.9	4.5	8.5	0.5
Saint Kitts and Nevis	26.1	24.4, 27.9	36.8	34.7, 38.9	16.1	14.7, 17.5	4.1	8.0	0.5
Saint Lucia	30.1	28.4, 31.9	41.6	39.6, 43.6	18.8	17.4, 20.3	7.7	13.8	1.8
Saint Vincent and the Grenadines	23.6	22.1, 25.2	33.1	31.1, 35.1	13.6	12.4, 14.8	4.9	9.0	0.7
Suriname	15.2	13.8, 16.5	22.5	20.6, 24.3	8.1	7.2, 8.9	5.2	9.6	0.9
Trinidad and Tobago	18.3	16.7, 19.8	26.5	24.5, 28.5	10.2	9.1, 11.2	4.1	7.9	0.5
United States of America	33.2	31.5, 35.0	44.9	42.9, 46.9	21.2	19.6, 22.7	6.7	12.4	1.1
Uruguay	27.4	24.8, 30.0	37.9	34.7, 41.1	16.3	14.3, 18.4	2.4	5.0	0.1
Venezuela (Bolivarian Republic of)	13.9	12.7, 15.1	20.1	18.5, 21.8	7.8	7.0, 8.6	0.7	1.3	<0.1
EASTERN MEDITERRANEAN REGION									
Afghanistan	0.3	0.3, 0.4	0.6	0.5, 0.7	0.1	<0.1, 0.1	<0.1	<0.1	<0.1
Bahrain	4.4	3.8, 5.0	5.9	5.2, 6.7	1.6	1.4, 1.8	0.5	0.7	<0.1
Djibouti	1.7	1.5, 1.9	3.0	2.7, 3.3	0.6	0.6, 0.7	<0.1	0.1	<0.1
Egypt	1.3	1.1, 1.5	2.2	1.9, 2.5	0.5	0.4, 0.5	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	0.4	0.3, 0.4	0.6	0.6, 0.7	0.1	<0.1, 0.1	0.3	0.5	<0.1
Iraq	1.4	1.2, 1.6	2.4	2.1, 2.7	0.5	0.4, 0.6	<0.1	<0.1	<0.1
Jordan	1.5	1.3, 1.7	2.5	2.2, 2.8	0.5	0.4, 0.6	<0.1	<0.1	<0.1

Table A2.1.4 *continued*

Country	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Kuwait	0.2	0.2, 0.2	0.3	0.2, 0.3	<0.1	<0.1, <0.1	<0.1	<0.1	<0.1
Lebanon	3.5	3.0, 3.9	5.8	5.1, 6.6	1.4	1.2, 1.6	0.9	1.7	<0.1
Libya	0.2	0.2, 0.2	0.4	0.3, 0.4	<0.1	<0.1, <0.1	<0.1	<0.1	<0.1
Morocco	1.6	1.4, 1.8	2.8	2.4, 3.1	0.6	0.5, 0.7	0.2	0.4	<0.1
Oman	2.9	2.5, 3.3	3.9	3.4, 4.4	0.9	0.8, 1.0	0.1	0.2	<0.1
Pakistan	0.4	0.3, 0.5	0.7	0.6, 0.7	0.1	0.1, 0.2	<0.1	<0.1	<0.1
Qatar	6.0	5.0, 7.1	7.2	5.9, 8.4	2.3	1.9, 2.8	<0.1	<0.1	<0.1
Saudi Arabia	0.4	0.3, 0.4	0.6	0.5, 0.7	0.1	<0.1, 0.1	<0.1	<0.1	<0.1
Somalia	0.3	0.2, 0.3	0.5	0.4, 0.6	<0.1	<0.1, 0.1	<0.1	<0.1	<0.1
Sudan	0.8	0.6, 0.9	1.3	1.0, 1.5	0.3	0.2, 0.4	<0.1	<0.1	<0.1
Syrian Arab Republic	0.4	0.3, 0.4	0.7	0.6, 0.7	0.1	<0.1, 0.1	0.1	0.2	<0.1
Tunisia	2.4	2.1, 2.7	4.1	3.6, 4.6	0.9	0.8, 1.0	1.6	3.1	0.3
United Arab Emirates	3.1	2.7, 3.4	4.0	3.5, 4.5	0.8	0.7, 0.9	1.9	2.5	0.2
Yemen	0.2	0.2, 0.2	0.4	0.3, 0.4	<0.1	<0.1, <0.1	<0.1	<0.1	<0.1
EUROPEAN REGION									
Albania	9.8	8.5, 11.1	14.9	13.1, 16.8	4.7	4.0, 5.4	2.8	5.5	0.2
Andorra	44.7	42.8, 46.7	57.3	55.2, 59.3	31.2	29.4, 33.1	8.0	14.1	1.3
Armenia	28.6	27.1, 30.1	40.1	38.3, 41.8	18.8	17.4, 20.1	3.0	6.5	0.3
Austria	35.4	33.5, 37.3	47.2	45.0, 49.5	23.6	22.0, 25.2	8.8	16.1	1.8
Azerbaijan	4.8	4.3, 5.2	8.0	7.2, 8.7	2.1	1.9, 2.3	1.9	3.8	0.2
Belarus	27.8	25.2, 30.3	39.0	35.9, 42.1	17.2	15.2, 19.2	8.3	16.0	2.0
Belgium	32.3	30.6, 34.0	44.1	42.1, 46.0	20.5	19.1, 21.9	7.0	13.1	1.1
Bosnia and Herzegovina	11.0	9.9, 12.1	16.9	15.3, 18.6	5.5	4.9, 6.2	4.5	8.7	0.6
Bulgaria	23.2	21.6, 24.7	33.0	30.9, 35.0	13.2	12.1, 14.3	9.1	16.6	2.1
Croatia	30.9	29.3, 32.5	42.3	40.4, 44.1	18.8	17.5, 20.2	5.7	11.0	0.7
Cyprus	20.7	19.1, 22.2	30.0	27.9, 32.1	11.3	10.3, 12.4	5.1	9.7	0.6
Czechia	40.7	38.8, 42.6	53.0	50.9, 55.0	28.0	26.2, 29.7	10.1	18.0	2.5
Denmark	34.2	32.5, 36.0	46.2	44.2, 48.2	21.9	20.4, 23.4	6.1	11.4	0.8
Estonia	30.0	27.0, 32.9	40.9	37.4, 44.4	18.8	16.4, 21.2	8.0	15.3	1.6
Finland	40.2	38.4, 42.0	52.8	50.8, 54.7	26.9	25.3, 28.5	5.8	11.0	0.7
France	32.1	30.4, 33.8	43.9	41.9, 46.0	20.7	19.3, 22.1	8.1	15.1	1.6

Table A2.1.4 *continued*

	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Georgia	27.5	25.8, 29.2	38.8	36.8, 40.9	16.9	15.5, 18.2	11.2	19.5	4.2
Germany	34.7	32.8, 36.6	46.3	44.1, 48.6	22.8	21.3, 24.3	8.8	16.0	1.8
Greece	28.0	26.4, 29.6	39.4	37.4, 41.3	16.4	15.1, 17.6	3.7	7.4	0.3
Hungary	37.3	35.6, 39.0	49.8	47.9, 51.6	24.7	23.1, 26.2	7.4	14.2	1.4
Iceland	43.1	41.1, 45.1	55.8	53.6, 57.9	29.1	27.2, 30.9	4.4	8.3	0.4
Ireland	45.7	43.1, 48.3	58.2	55.4, 60.9	33.6	31.1, 36.1	8.0	14.8	1.5
Israel	15.0	13.6, 16.3	22.2	20.4, 24.1	7.9	7.0, 8.7	0.5	1.0	<0.1
Italy	31.6	30.0, 33.2	43.5	41.6, 45.5	19.4	18.1, 20.7	4.8	9.4	0.5
Kazakhstan	7.9	7.1, 8.6	12.7	11.6, 13.8	3.8	3.4, 4.3	3.4	6.6	0.6
Kyrgyzstan	6.1	5.6, 6.6	10.1	9.3, 10.9	2.7	2.5, 3.0	3.6	6.5	0.8
Latvia	31.2	28.2, 34.2	42.4	38.9, 46.0	20.2	17.8, 22.7	9.7	18.3	2.6
Lithuania	30.5	27.5, 33.5	41.5	38.0, 45.1	19.4	17.0, 21.9	8.5	16.3	1.9
Luxembourg	48.5	44.0, 53.0	60.2	55.8, 64.7	36.0	31.5, 40.5	7.9	14.5	1.4
Malta	43.0	41.1, 44.9	55.4	53.3, 57.4	28.7	27.0, 30.5	5.1	9.5	0.5
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	19.4	17.9, 20.9	28.5	26.5, 30.5	10.7	9.7, 11.7	7.7	14.3	1.7
Netherlands (Kingdom of the)	32.3	30.6, 34.0	44.1	42.1, 46.1	20.3	18.9, 21.7	6.0	11.3	0.8
North Macedonia	10.0	9.0, 11.1	15.3	13.8, 16.8	5.0	4.4, 5.7	2.9	5.6	0.2
Norway	32.2	30.3, 34.1	44.0	41.8, 46.3	19.6	18.2, 21.1	3.4	6.6	0.2
Poland	38.5	36.8, 40.3	51.1	49.2, 53.0	25.9	24.3, 27.5	8.7	16.1	1.9
Portugal	43.7	41.9, 45.6	57.1	55.1, 59.1	31.1	29.3, 32.9	7.3	14.2	1.3
Republic of Moldova	27.6	25.2, 30.1	38.7	35.6, 41.7	16.9	14.9, 18.9	8.4	15.7	2.0
Romania	42.1	40.1, 44.2	54.7	52.4, 57.0	29.9	28.2, 31.7	12.8	22.0	4.4
Russian Federation	19.9	17.4, 22.4	30.9	27.3, 34.6	9.3	7.9, 10.7	7.9	15.2	1.8
San Marino	–	–	–	–	–	–	–	–	–
Serbia	24.7	23.2, 26.2	35.0	33.0, 36.9	14.2	13.0, 15.3	5.2	10.2	0.6
Slovakia	38.0	36.3, 39.7	50.4	48.5, 52.2	25.2	23.6, 26.8	8.3	15.3	1.7
Slovenia	30.7	29.0, 32.5	41.6	39.6, 43.7	18.8	17.4, 20.3	8.6	15.5	1.7
Spain	36.7	34.9, 38.4	48.9	46.9, 51.0	24.2	22.7, 25.8	7.7	14.5	1.4
Sweden	32.5	30.9, 34.2	44.2	42.2, 46.1	20.3	18.9, 21.7	6.0	11.3	0.8
Switzerland	36.2	34.2, 38.1	48.2	45.9, 50.4	24.0	22.3, 25.7	7.2	13.5	1.2

Table A2.1.4 *continued*

Country	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Tajikistan	3.3	2.9, 3.6	5.4	4.9, 6.0	1.4	1.2, 1.5	0.3	0.5	<0.1
Türkiye	2.6	2.3, 2.9	4.4	3.9, 4.9	1.0	0.9, 1.1	1.3	2.5	0.1
Turkmenistan	5.2	4.7, 5.7	8.6	7.8, 9.3	2.3	2.0, 2.5	2.2	4.1	0.3
Ukraine	21.7	19.5, 23.9	31.2	28.3, 34.1	12.4	10.8, 14.0	6.3	12.5	1.1
United Kingdom of Great Britain and Northern Ireland	33.6	31.9, 35.3	45.5	43.5, 47.5	21.7	20.2, 23.1	7.5	14.0	1.3
Uzbekistan	4.6	4.2, 5.0	7.6	6.9, 8.2	1.9	1.7, 2.2	1.9	3.6	0.2
SOUTH-EAST ASIA REGION									
Bangladesh	0.6	0.5, 0.8	1.1	0.9, 1.3	0.2	0.2, 0.3	<0.1	<0.1	<0.1
Bhutan	9.6	8.4, 10.8	13.3	11.6, 15.1	5.3	4.6, 6.1	<0.1	<0.1	<0.1
Democratic People's Republic of Korea	17.3	5.5, 29.0	25.1	8.9, 41.3	8.8	1.7, 16.0	1.5	3.1	<0.1
India	12.3	11.2, 13.4	18.6	17.1, 20.2	6.0	5.3, 6.6	3.8	6.9	0.5
Indonesia	1.6	1.4, 1.8	2.7	2.4, 3.0	0.6	0.5, 0.7	<0.1	<0.1	<0.1
Maldives	1.7	1.5, 1.9	2.6	2.3, 2.9	0.5	0.4, 0.6	1.2	2.0	0.2
Myanmar	14.2	13.1, 15.2	20.8	19.3, 22.2	7.7	7.0, 8.4	0.5	1.1	<0.1
Nepal	10.5	9.6, 11.4	16.7	15.4, 18.0	5.7	5.1, 6.2	0.3	0.6	<0.1
Sri Lanka	12.4	11.5, 13.4	18.8	17.4, 20.1	6.7	6.1, 7.3	1.1	2.2	<0.1
Thailand	21.6	20.2, 23.1	31.3	29.4, 33.2	12.2	11.2, 13.3	5.9	11.1	1.0
Timor-Leste	10.4	9.1, 11.6	14.5	12.7, 16.3	6.1	5.3, 6.9	<0.1	<0.1	<0.1
WESTERN PACIFIC REGION									
Australia	39.1	36.2, 42.1	51.7	48.4, 54.9	26.7	23.9, 29.4	6.7	12.6	1.1
Brunei Darussalam	6.1	5.1, 7.1	8.8	7.4, 10.1	3.4	2.8, 4.0	<0.1	<0.1	<0.1
Cambodia	25.8	24.3, 27.2	36.5	34.7, 38.4	15.1	14.0, 16.3	6.6	12.0	1.4
China	14.8	4.0, 25.5	21.4	6.4, 36.4	7.2	1.1, 13.3	2.1	4.2	<0.1
Cook Islands	28.9	27.7, 30.1	40.5	39.1, 41.9	18.8	17.8, 19.9	8.1	14.4	2.6
Fiji	14.9	13.9, 15.8	21.9	20.6, 23.1	8.0	7.4, 8.7	2.5	4.9	0.2
Japan	43.5	41.9, 45.1	56.0	54.4, 57.5	30.1	28.6, 31.7	3.7	7.3	0.3
Kiribati	13.0	12.2, 13.8	19.4	18.4, 20.5	7.4	6.9, 8.0	<0.1	<0.1	<0.1
Lao People's Democratic Republic	34.0	32.3, 35.7	46.1	44.2, 48.0	21.6	20.1, 23.0	9.4	16.0	2.8
Malaysia	3.6	3.2, 4.0	5.8	5.1, 6.4	1.5	1.3, 1.7	<0.1	0.2	<0.1
Marshall Islands	–	–	–	–	–	–	–	–	–

Table A2.1.4 *continued*

Country	Age-standardized HED in the 15+ years population (1)						Heavy continuous drinkers in the 15+ years population (1)		
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Micronesia (Federated States of)	16.9	16.1, 17.7	24.3	23.3, 25.3	9.6	9.0, 10.2	0.8	1.5	<0.1
Mongolia	26.7	25.2, 28.3	36.9	35.1, 38.8	16.2	14.9, 17.4	5.5	10.3	0.9
Nauru	19.0	18.0, 19.9	27.1	25.9, 28.2	11.1	10.4, 11.8	1.4	2.7	<0.1
New Zealand	41.5	38.5, 44.4	54.3	51.1, 57.4	28.8	26.0, 31.5	6.6	12.3	1.0
Niue	27.3	26.2, 28.4	38.0	36.7, 39.2	17.1	16.2, 18.0	7.3	13.2	1.9
Palau	–	–	–	–	–	–	–	–	–
Papua New Guinea	15.5	14.7, 16.3	22.2	21.2, 23.2	8.6	8.0, 9.2	0.2	0.4	<0.1
Philippines	19.5	18.2, 20.7	28.0	26.3, 29.7	10.6	9.8, 11.5	4.3	7.9	0.6
Republic of Korea	45.3	43.8, 46.9	57.7	56.2, 59.3	31.9	30.2, 33.5	5.0	9.5	0.5
Samoa	17.8	17.0, 18.6	25.4	24.4, 26.4	10.1	9.5, 10.7	1.0	2.0	<0.1
Singapore	21.4	18.8, 24.0	29.3	26.0, 32.6	11.9	10.0, 13.7	<0.1	<0.1	<0.1
Solomon Islands	15.6	14.8, 16.4	22.6	21.5, 23.6	8.7	8.2, 9.3	0.3	0.6	<0.1
Tonga	11.6	10.7, 12.5	17.1	15.9, 18.4	6.6	6.0, 7.2	<0.1	<0.1	<0.1
Tuvalu	15.1	14.3, 15.9	21.5	20.5, 22.6	8.3	7.8, 8.9	0.1	0.2	<0.1
Vanuatu	16.7	15.9, 17.5	24.2	23.2, 25.2	9.5	8.9, 10.1	0.7	1.5	<0.1
Viet Nam	30.9	29.3, 32.4	42.7	40.9, 44.5	19.3	18.0, 20.6	7.0	13.0	1.5

"–" Data not available
CI = confidence intervals
(1) 2019, 15+ years population, in %

Table A2.1.5 Age-standardized heavy episodic drinking (HED) and heavy continuous drinkers among current drinkers

	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
AFRICAN REGION									
Algeria	22.6	22.1, 22.7	26.2	25.6, 26.4	14.6	14.3, 14.6	2.6	3.5	<0.1
Angola	85.3	86.3, 84.2	89.8	91.1, 88.6	78.6	78.9, 78.0	5.7	9.3	0.7
Benin	53.4	53.1, 53.7	61.3	60.8, 61.8	41.2	40.9, 41.4	14.8	21.2	4.7
Botswana	50.4	50.4, 50.2	57.9	57.7, 58.0	38.0	38.1, 37.7	19.9	26.7	8.2
Burkina Faso	52.2	53.3, 51.1	59.7	60.8, 58.7	40.5	41.5, 39.4	24.3	30.8	12.4
Burundi	55.5	56.5, 54.6	61.7	62.6, 61.0	44.8	45.6, 43.9	7.0	10.6	1.0
Cabo Verde	68.9	70.4, 68.3	76.9	77.9, 76.5	56.0	57.3, 55.6	6.6	10.6	0.8
Cameroon	55.6	55.3, 56.0	63.9	63.3, 64.5	43.1	42.7, 43.4	15.3	22.2	5.3
Central African Republic	72.4	71.9, 72.6	77.1	76.7, 77.2	64.7	63.6, 65.0	0.8	1.3	<0.1
Chad	48.3	49.0, 47.5	53.8	54.6, 53.1	38.2	38.6, 37.5	11.6	16.1	2.5
Comoros	32.7	38.4, 27.8	37.6	44.6, 31.8	21.5	24.4, 18.8	20.3	25.2	6.3
Congo	83.3	83.9, 82.6	88.4	89.3, 87.5	75.6	75.5, 75.5	7.0	11.3	1.0
Côte d'Ivoire	46.5	46.8, 46.3	51.8	52.0, 51.7	37.2	37.5, 37.0	5.3	7.7	0.5
Democratic Republic of the Congo	78.4	78.3, 78.2	82.9	83.0, 82.7	71.0	70.4, 71.1	0.5	0.9	<0.1
Equatorial Guinea	79.3	78.9, 79.5	85.2	85.2, 85.2	68.9	67.5, 69.9	8.1	12.2	1.1
Eritrea	36.6	37.8, 35.2	41.5	42.8, 40.0	28.0	28.9, 26.8	3.1	4.6	0.1
Eswatini	51.4	51.7, 51.0	58.4	58.5, 58.3	39.0	39.5, 38.5	20.7	27.1	8.8
Ethiopia	42.4	43.7, 40.9	47.9	49.4, 46.4	32.4	33.4, 31.2	14.3	19.4	3.8
Gabon	74.5	73.8, 74.9	81.1	80.8, 81.3	64.1	62.5, 65.0	9.2	14.0	1.7
Gambia	35.0	38.9, 31.5	39.1	43.1, 35.4	28.0	31.5, 25.0	0.3	0.4	<0.1
Ghana	50.5	50.4, 50.8	57.4	57.0, 57.9	39.1	39.1, 39.3	6.1	9.5	0.7
Guinea	38.6	41.6, 35.7	43.7	47.2, 40.5	29.8	32.1, 27.6	0.4	0.6	<0.1
Guinea-Bissau	48.2	48.5, 47.8	54.4	54.6, 54.1	37.8	37.9, 37.5	10.7	15.3	2.2
Kenya	46.1	46.5, 45.6	51.5	51.9, 51.2	36.3	36.7, 35.8	4.9	7.3	0.4
Lesotho	49.2	50.1, 48.4	55.4	56.2, 54.7	37.7	38.6, 36.9	15.0	20.3	4.2
Liberia	51.8	52.2, 51.9	58.3	58.4, 58.5	41.0	41.5, 40.9	3.7	5.9	0.3
Madagascar	45.4	45.7, 45.2	49.8	49.9, 49.8	37.3	37.6, 36.8	0.1	0.2	<0.1
Malawi	46.9	47.6, 46.1	52.8	53.4, 52.1	37.2	37.8, 36.4	7.7	11.5	1.2
Mali	49.8	56.5, 44.4	55.9	63.2, 50.2	39.1	44.5, 34.4	22.7	28.2	9.8

Table A2.1.5 *continued*

	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Mauritania	38.1	45.6, 32.4	43.5	52.7, 36.8	26.9	31.0, 23.6	<0.1	<0.1	<0.1
Mauritius	34.3	33.3, 34.9	41.7	40.4, 42.8	22.6	22.0, 23.0	12.7	18.7	3.0
Mozambique	42.6	43.3, 41.8	47.9	48.5, 47.2	33.5	34.0, 32.7	4.0	6.0	0.3
Namibia	49.4	50.0, 48.9	56.3	56.7, 56.0	37.9	38.5, 37.3	16.9	23.1	5.8
Niger	32.5	36.3, 29.0	36.5	40.8, 32.6	25.0	28.0, 22.4	<0.1	<0.1	<0.1
Nigeria	47.9	48.1, 47.4	53.6	53.9, 53.2	37.5	37.6, 37.0	11.9	16.5	2.6
Rwanda	54.7	55.8, 53.9	60.9	61.8, 60.2	44.4	45.3, 43.7	4.1	6.4	0.3
Sao Tome and Principe	69.0	71.0, 68.1	75.8	77.3, 75.1	57.7	59.7, 56.7	5.2	8.4	0.5
Senegal	37.7	42.7, 33.4	43.1	48.7, 38.2	28.9	32.8, 25.5	0.3	0.4	<0.1
Seychelles	53.1	51.9, 54.2	63.0	61.5, 64.3	36.9	35.6, 38.0	14.9	21.8	4.1
Sierra Leone	30.5	31.4, 29.4	33.5	34.3, 32.3	25.1	26.1, 23.9	<0.1	<0.1	<0.1
South Africa	43.0	42.6, 43.2	50.9	50.2, 51.5	30.3	30.0, 30.3	21.2	28.0	9.2
South Sudan	–	–	–	–	–	–	–	–	–
Togo	44.0	44.3, 44.0	48.8	48.7, 49.2	35.4	36.1, 35.0	0.2	0.3	<0.1
Uganda	54.5	55.2, 53.3	62.4	62.9, 61.5	42.6	43.3, 41.3	21.4	28.7	10.5
United Republic of Tanzania	46.6	48.1, 44.8	54.1	55.5, 52.3	35.5	36.7, 33.7	25.0	31.7	13.4
Zambia	64.0	65.9, 62.5	69.9	71.7, 68.6	53.8	55.4, 52.4	5.7	8.8	0.6
Zimbabwe	49.3	50.5, 48.2	55.8	56.8, 54.8	39.1	40.4, 38.1	14.2	20.2	4.3
REGION OF THE AMERICAS									
Antigua and Barbuda	48.8	47.6, 50.0	59.6	58.2, 61.0	35.1	33.8, 36.3	10.9	17.6	2.5
Argentina	40.6	38.0, 43.1	51.5	48.4, 54.3	26.4	24.0, 28.5	6.5	11.3	0.8
Bahamas	44.4	43.0, 45.9	53.6	52.0, 55.3	32.1	30.7, 33.4	3.9	6.7	0.3
Barbados	48.4	47.3, 49.5	59.2	57.8, 60.5	34.4	33.2, 35.4	12.9	20.2	3.5
Belize	49.6	48.7, 50.5	57.4	56.3, 58.6	37.3	36.3, 38.1	6.6	10.6	0.9
Bolivia (Plurinational State of)	51.5	47.7, 55.0	60.6	56.8, 64.3	37.3	33.5, 40.9	1.8	3.2	<0.1
Brazil	35.3	33.8, 36.3	44.3	42.3, 45.7	22.5	21.2, 23.4	13.8	21.4	4.2
Canada	36.5	35.0, 37.9	46.8	45.1, 48.5	22.9	21.6, 24.1	10.0	16.6	2.0
Chile	40.5	37.8, 42.9	51.3	48.2, 54.2	26.2	23.8, 28.3	6.2	10.9	0.7
Colombia	41.3	40.5, 42.1	48.5	47.5, 49.6	29.4	28.7, 30.1	7.4	11.6	1.0
Costa Rica	37.7	36.8, 38.6	44.1	42.9, 45.2	26.8	26.0, 27.4	3.6	5.7	0.2
Cuba	45.2	44.1, 46.3	54.2	52.9, 55.5	31.6	30.5, 32.6	7.6	12.1	1.0

Table A2.1.5 *continued*

	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Dominica	47.4	46.4, 48.5	55.9	54.7, 57.2	34.4	33.4, 35.4	7.0	11.2	0.9
Dominican Republic	49.2	48.1, 50.3	58.1	56.8, 59.4	36.0	34.9, 37.1	8.4	13.4	1.4
Ecuador	48.5	44.7, 52.0	57.6	53.7, 61.3	34.4	30.8, 37.9	1.1	1.9	<0.1
El Salvador	40.1	39.6, 40.7	47.0	46.3, 47.8	29.6	29.1, 30.0	4.5	7.3	0.4
Grenada	49.4	48.3, 50.5	59.0	57.6, 60.3	35.5	34.3, 36.5	10.7	16.6	2.3
Guatemala	36.5	36.0, 37.0	41.4	40.7, 42.1	28.0	27.7, 28.3	0.6	0.9	<0.1
Guyana	35.5	34.1, 36.7	42.7	41.0, 44.4	24.8	23.7, 25.8	6.9	11.1	1.0
Haiti	46.3	45.5, 47.1	53.2	52.1, 54.3	35.3	34.7, 36.0	2.5	4.0	0.1
Honduras	41.4	40.9, 42.0	47.2	46.4, 48.0	31.0	30.6, 31.5	3.8	5.9	0.2
Jamaica	44.6	43.7, 45.6	52.2	51.0, 53.4	32.8	32.0, 33.6	2.8	4.6	0.1
Mexico	42.3	41.5, 43.2	50.0	49.0, 51.2	30.3	29.5, 31.1	9.1	14.4	1.7
Nicaragua	42.3	41.7, 42.9	48.8	48.0, 49.7	31.3	30.8, 31.8	5.7	9.0	0.6
Panama	42.6	41.5, 43.8	50.6	49.3, 52.0	30.1	29.0, 31.1	9.8	15.2	1.9
Paraguay	32.3	30.9, 33.3	39.0	37.1, 40.4	21.4	20.3, 22.2	6.5	10.5	0.8
Peru	55.3	51.5, 58.9	65.6	61.9, 69.1	40.9	36.8, 44.9	6.7	11.6	0.9
Saint Kitts and Nevis	46.9	45.5, 48.2	56.6	55.0, 58.1	33.7	32.3, 35.0	7.5	12.4	1.1
Saint Lucia	51.1	50.0, 52.2	61.4	60.1, 62.7	36.9	35.7, 38.0	13.2	20.3	3.6
Saint Vincent and the Grenadines	42.8	41.5, 44.0	51.0	49.5, 52.6	29.7	28.5, 30.7	9.3	14.3	1.6
Suriname	32.1	30.7, 33.3	39.3	37.5, 41.0	21.5	20.3, 22.3	11.0	16.8	2.4
Trinidad and Tobago	34.2	32.6, 35.7	42.5	40.5, 44.4	22.4	21.0, 23.5	7.9	12.6	1.1
United States of America	42.3	40.8, 43.8	53.7	52.0, 55.3	28.1	26.6, 29.5	9.4	15.7	1.7
Uruguay	37.1	34.5, 39.4	47.7	44.6, 50.5	23.3	21.1, 25.2	3.6	6.6	0.2
Venezuela (Bolivarian Republic of)	36.4	35.6, 37.1	42.4	41.3, 43.4	26.3	25.6, 26.9	1.7	2.8	<0.1
EASTERN MEDITERRANEAN REGION									
Afghanistan	16.4	18.0, 14.9	19.0	21.1, 17.1	10.5	10.9, 9.9	<0.1	<0.1	<0.1
Bahrain	24.2	24.5, 23.7	26.3	26.4, 25.9	15.8	16.4, 15.1	2.2	2.7	<0.1
Djibouti	29.5	33.1, 25.9	34.3	38.8, 30.0	20.6	22.7, 18.3	1.0	1.4	<0.1
Egypt	18.1	17.5, 18.3	20.8	20.1, 21.2	12.0	11.6, 12.2	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	24.6	28.5, 21.5	29.0	33.5, 25.3	14.5	16.6, 12.8	19.1	23.7	5.0
Iraq	20.5	20.1, 20.7	23.7	23.1, 23.9	13.9	13.6, 14.0	<0.1	0.1	<0.1

Table A2.1.5 *continued*

	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Jordan	20.9	20.3, 21.0	23.7	23.1, 24.0	13.9	13.6, 14.0	0.1	0.2	<0.1
Kuwait	23.8	29.4, 20.0	26.5	32.9, 22.2	13.0	15.3, 11.4	<0.1	<0.1	<0.1
Lebanon	24.4	25.8, 23.0	28.5	29.8, 27.1	16.6	17.7, 15.3	6.3	8.9	0.5
Libya	15.2	16.2, 14.3	18.0	19.4, 16.7	8.9	8.8, 8.7	<0.1	<0.1	<0.1
Morocco	22.5	22.0, 22.5	26.1	25.6, 26.2	14.5	14.3, 14.6	2.8	3.8	<0.1
Oman	23.6	23.3, 23.5	25.4	25.0, 25.4	15.1	15.1, 14.8	1.0	1.2	<0.1
Pakistan	24.6	27.9, 21.4	28.4	32.5, 24.5	16.0	17.3, 14.3	1.9	2.7	<0.1
Qatar	22.3	21.9, 22.8	23.4	22.8, 24.0	15.1	15.3, 14.8	<0.1	<0.1	<0.1
Saudi Arabia	22.6	24.8, 20.9	25.2	27.9, 23.2	13.2	13.8, 12.6	<0.1	<0.1	<0.1
Somalia	30.0	35.0, 25.7	34.5	40.8, 29.3	19.9	22.2, 17.6	<0.1	<0.1	<0.1
Sudan	11.5	10.3, 12.3	13.1	11.8, 13.9	8.2	7.2, 8.8	<0.1	<0.1	<0.1
Syrian Arab Republic	23.3	25.7, 21.4	27.2	30.0, 24.9	14.7	15.8, 13.7	8.2	10.9	0.7
Tunisia	26.4	26.0, 26.4	31.0	30.5, 31.2	16.9	16.7, 16.9	18.1	23.2	5.1
United Arab Emirates	34.4	35.0, 33.9	36.9	37.4, 36.5	20.6	21.4, 19.8	17.9	19.8	3.4
Yemen	19.2	21.6, 17.1	22.4	25.3, 19.8	11.9	12.8, 11.0	<0.1	<0.1	<0.1
EUROPEAN REGION									
Albania	17.7	17.2, 17.9	21.9	21.1, 22.4	10.8	10.5, 10.9	5.6	8.7	0.5
Andorra	51.8	50.2, 53.4	63.9	62.2, 65.6	36.7	35.0, 38.4	9.6	16.1	1.7
Armenia	53.7	53.3, 54.2	63.9	63.3, 64.6	39.8	39.2, 40.5	5.9	10.5	0.7
Austria	39.1	37.5, 40.8	51.1	49.0, 53.1	25.7	24.3, 27.0	11.0	18.6	2.5
Azerbaijan	31.2	33.3, 29.3	37.1	39.5, 35.0	21.4	23.0, 19.9	12.2	16.8	2.3
Belarus	35.7	33.4, 37.8	48.0	45.2, 50.7	22.1	20.2, 23.9	12.1	20.5	3.2
Belgium	36.6	35.1, 38.0	48.1	46.3, 49.8	23.2	22.0, 24.4	9.0	15.4	1.6
Bosnia and Herzegovina	22.2	21.3, 22.9	28.2	26.9, 29.3	13.8	13.2, 14.1	10.4	15.6	1.9
Bulgaria	29.4	28.0, 30.7	39.3	37.5, 41.1	17.1	16.1, 18.0	13.7	21.7	3.8
Croatia	38.5	37.2, 39.8	49.8	48.2, 51.3	24.0	22.8, 25.1	8.2	14.0	1.2
Cyprus	28.3	26.9, 29.7	37.5	35.5, 39.3	16.8	15.7, 17.7	7.5	12.4	1.0
Czechia	47.8	46.3, 49.3	60.4	58.7, 62.1	32.8	31.4, 34.3	13.4	21.7	3.7
Denmark	38.5	37.0, 39.9	49.9	48.2, 51.7	24.8	23.5, 26.1	7.8	13.4	1.1
Estonia	34.5	31.7, 37.1	46.8	43.4, 50.1	20.9	18.7, 23.0	10.7	18.5	2.4
Finland	44.5	43.0, 46.0	56.9	55.2, 58.6	29.6	28.2, 31.0	7.4	12.9	1.0

Table A2.1.5 *continued*

	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
France	35.9	34.3, 37.3	47.3	45.5, 49.2	23.1	21.8, 24.2	10.4	17.8	2.3
Georgia	44.2	43.3, 44.8	55.9	54.6, 56.9	29.3	28.5, 29.8	19.9	29.0	8.9
Germany	37.6	36.0, 39.2	49.4	47.3, 51.4	24.2	22.9, 25.4	11.1	18.6	2.5
Greece	33.4	32.1, 34.7	43.8	42.1, 45.5	20.1	19.1, 21.2	5.2	9.1	0.4
Hungary	45.8	44.4, 47.2	58.6	57.1, 60.1	30.5	29.1, 31.8	10.4	17.6	2.2
Iceland	50.9	49.2, 52.6	62.8	61.0, 64.7	35.3	33.7, 37.0	5.6	9.7	0.5
Ireland	51.1	48.8, 53.3	63.2	60.8, 65.6	37.9	35.6, 40.1	9.6	16.7	2.0
Israel	23.5	22.3, 24.6	30.1	28.5, 31.7	14.5	13.8, 15.2	0.8	1.4	<0.1
Italy	35.6	34.3, 36.9	47.1	45.5, 48.8	21.7	20.6, 22.8	6.4	11.3	0.7
Kazakhstan	31.8	32.1, 31.3	38.4	38.6, 38.0	21.7	21.9, 21.2	13.9	19.6	3.5
Kyrgyzstan	35.4	37.3, 33.8	41.6	43.7, 39.9	25.0	26.4, 23.8	19.7	25.7	7.4
Latvia	35.0	32.2, 37.7	47.9	44.4, 51.3	21.7	19.4, 23.8	12.9	22.0	3.8
Lithuania	34.7	31.9, 37.4	47.3	43.8, 50.6	21.2	19.0, 23.4	11.3	19.7	2.8
Luxembourg	53.8	49.6, 58.0	65.7	61.5, 69.9	39.7	35.3, 44.0	9.4	16.3	1.8
Malta	49.8	48.2, 51.5	61.9	60.1, 63.7	33.6	32.0, 35.2	6.5	11.0	0.7
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	27.9	26.6, 29.2	36.9	35.0, 38.6	16.7	15.8, 17.6	12.4	19.6	3.1
Netherlands (Kingdom of the)	36.6	35.2, 38.0	47.8	46.1, 49.5	23.3	22.0, 24.5	7.7	13.4	1.1
North Macedonia	21.5	20.7, 22.2	26.9	25.7, 27.9	13.7	13.2, 14.0	6.7	10.2	0.7
Norway	37.6	36.0, 39.1	48.9	46.9, 50.8	23.4	22.2, 24.6	4.4	7.8	0.3
Poland	47.2	45.7, 48.6	59.9	58.3, 61.4	32.0	30.6, 33.4	11.8	19.7	2.9
Portugal	48.9	47.3, 50.4	62.0	60.3, 63.7	34.5	32.9, 36.0	9.4	16.6	1.8
Republic of Moldova	36.9	34.6, 39.0	48.5	45.7, 51.1	23.1	21.2, 24.9	12.0	20.0	3.2
Romania	49.7	48.5, 50.8	62.6	61.0, 64.1	35.3	34.3, 36.2	16.8	26.3	6.4
Russian Federation	30.8	27.9, 33.6	42.6	38.5, 46.5	15.5	13.8, 17.1	13.5	21.3	3.8
San Marino	–	–	–	–	–	–	–	–	–
Serbia	32.6	31.3, 33.9	42.7	40.9, 44.4	19.6	18.5, 20.6	7.9	13.5	1.2
Slovakia	47.2	45.8, 48.6	59.8	58.2, 61.3	31.9	30.4, 33.3	11.2	18.7	2.5
Slovenia	36.8	35.2, 38.3	47.9	46.1, 49.7	22.5	21.2, 23.8	11.8	19.2	2.7
Spain	41.0	39.5, 42.6	53.2	51.4, 55.0	26.9	25.5, 28.2	9.8	16.9	1.9
Sweden	36.9	35.4, 38.3	47.9	46.2, 49.6	23.2	22.0, 24.4	7.8	13.4	1.1

Table A2.1.5 *continued*

Country	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Switzerland	40.0	38.3, 41.7	52.1	50.1, 54.0	26.2	24.8, 27.7	9.0	15.6	1.6
Tajikistan	29.0	30.8, 27.1	33.4	35.3, 31.3	21.0	22.3, 19.5	2.1	3.0	<0.1
Türkiye	25.6	25.1, 25.8	29.8	29.2, 30.2	16.5	16.2, 16.6	12.8	16.8	2.2
Turkmenistan	32.5	34.3, 30.9	38.2	40.1, 36.5	22.9	24.2, 21.6	12.9	17.6	2.7
Ukraine	29.1	27.0, 31.0	39.5	36.8, 42.1	16.7	15.2, 18.2	9.5	16.4	1.8
United Kingdom of Great Britain and Northern Ireland	38.1	36.6, 39.6	49.5	47.7, 51.3	24.8	23.5, 26.0	9.6	16.4	1.9
Uzbekistan	32.7	35.1, 30.6	38.2	40.8, 35.9	22.9	24.7, 21.3	12.9	17.4	2.6
SOUTH-EAST ASIA REGION									
Bangladesh	12.2	11.5, 12.1	14.3	13.8, 14.1	8.4	7.5, 8.7	<0.1	<0.1	<0.1
Bhutan	33.9	32.4, 35.1	36.1	34.3, 37.8	28.9	28.2, 29.3	<0.1	<0.1	<0.1
Democratic People's Republic of Korea	27.8	9.4, 43.7	34.7	12.9, 54.4	16.7	3.4, 27.3	2.5	4.2	<0.1
India	40.1	39.7, 40.1	46.0	45.4, 46.2	29.1	28.9, 29.0	12.3	17.0	2.6
Indonesia	16.9	17.5, 15.9	19.7	20.4, 18.6	11.7	12.0, 11.1	<0.1	<0.1	<0.1
Maldives	31.8	36.5, 27.4	35.5	40.8, 30.5	19.5	22.1, 16.9	20.5	24.0	5.5
Myanmar	37.2	36.8, 37.4	42.7	42.0, 43.4	27.3	27.3, 27.3	1.4	2.2	<0.1
Nepal	40.2	40.0, 40.3	45.4	45.0, 45.7	32.1	32.2, 32.1	1.1	1.8	<0.1
Sri Lanka	32.0	31.6, 32.3	37.9	37.1, 38.4	22.6	22.5, 22.6	2.9	4.5	0.1
Thailand	39.6	38.6, 40.4	48.4	47.1, 49.5	26.4	25.6, 27.0	11.6	17.8	2.6
Timor-Leste	32.1	31.2, 32.8	34.7	33.3, 35.9	27.1	26.9, 27.2	<0.1	<0.1	<0.1
WESTERN PACIFIC REGION									
Australia	44.8	41.9, 47.6	56.8	53.6, 59.9	30.9	28.2, 33.6	8.4	14.6	1.4
Brunei Darussalam	18.3	17.4, 18.8	20.8	19.6, 21.6	14.2	13.6, 14.4	<0.1	<0.1	<0.1
Cambodia	50.2	49.6, 50.7	59.1	58.2, 59.9	36.4	35.9, 36.8	12.5	18.9	3.2
China	22.9	6.4, 37.2	28.8	8.9, 46.8	13.0	2.0, 21.8	3.5	5.7	0.2
Cook Islands	64.6	65.8, 63.3	73.1	74.2, 71.9	52.4	53.4, 51.4	19.1	27.0	7.9
Fiji	49.3	49.2, 49.2	55.7	55.5, 55.8	37.7	37.5, 37.5	8.2	12.0	1.1
Japan	53.0	52.0, 53.9	64.7	63.8, 65.7	37.4	36.2, 38.6	5.4	9.5	0.5
Kiribati	54.3	55.3, 53.3	59.4	60.2, 58.6	45.4	46.4, 44.3	<0.1	<0.1	<0.1
Lao People's Democratic Republic	59.9	59.6, 60.1	68.9	68.3, 69.4	46.2	45.8, 46.5	16.1	23.5	5.7

Table A2.1.5 *continued*

Country	Age-standardized HED among current drinkers (1)						Heavy continuous drinkers among current drinkers (1)		
	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Malaysia	22.5	23.1, 21.3	25.9	26.5, 24.8	16.0	16.6, 14.9	0.5	0.7	<0.1
Marshall Islands	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	60.7	61.9, 59.4	66.2	67.3, 65.0	50.4	51.5, 49.0	2.8	4.2	0.1
Mongolia	50.0	49.3, 50.8	59.1	58.1, 60.1	35.4	34.6, 36.1	9.8	15.7	2.0
Nauru	62.4	63.4, 61.4	68.2	69.0, 67.3	51.8	52.8, 50.8	4.3	6.5	0.3
New Zealand	47.7	44.9, 50.5	60.0	56.9, 63.0	33.6	30.9, 36.3	8.2	14.3	1.4
Niue	63.4	64.8, 62.0	71.7	73.0, 70.5	50.1	51.3, 48.8	18.5	25.8	6.6
Palau	–	–	–	–	–	–	–	–	–
Papua New Guinea	58.9	60.0, 57.7	63.6	64.6, 62.6	49.5	50.6, 48.1	0.8	1.2	<0.1
Philippines	42.5	41.9, 43.0	49.6	48.7, 50.5	30.3	29.8, 30.6	9.0	13.7	1.6
Republic of Korea	58.1	57.1, 59.1	70.0	69.1, 71.0	42.2	40.8, 43.4	6.8	11.8	0.8
Samoa	61.0	62.1, 59.8	66.4	67.4, 65.4	50.5	51.5, 49.3	3.6	5.3	0.2
Singapore	31.7	29.3, 33.8	39.6	36.7, 42.4	18.9	17.1, 20.5	<0.1	<0.1	<0.1
Solomon Islands	59.7	60.9, 58.3	64.6	65.6, 63.4	50.3	51.5, 48.8	1.1	1.7	<0.1
Tonga	48.0	48.1, 47.6	52.3	52.2, 52.2	40.4	40.7, 39.7	<0.1	<0.1	<0.1
Tuvalu	56.2	57.2, 55.2	61.3	62.2, 60.5	45.9	46.8, 44.7	0.5	0.7	<0.1
Vanuatu	61.0	62.2, 59.7	66.2	67.3, 65.1	51.5	52.7, 50.1	2.6	4.0	0.1
Viet Nam	55.5	55.1, 55.9	65.3	64.6, 65.9	40.9	40.4, 41.3	12.7	19.5	3.3

"–" Data not available
CI = confidence intervals
(1) 2019, 15+ years, in %

Table A2.1.6 Current drinkers, 15–19 years

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
AFRICAN REGION						
Algeria	2.3	2.0, 2.6	2.5	2.2, 2.9	2.0	1.7, 2.3
Angola	31.6	28.7, 34.9	34.0	30.9, 37.3	29.3	26.5, 32.5
Benin	23.9	21.6, 26.6	25.9	23.4, 28.7	21.9	19.6, 24.4
Botswana	14.6	12.7, 16.8	16.0	14.1, 18.3	13.2	11.3, 15.2
Burkina Faso	12.7	11.1, 14.7	14.0	12.2, 16.1	11.4	10.0, 13.3
Burundi	16.6	14.6, 18.9	18.1	16.0, 20.5	15.0	13.2, 17.2
Cabo Verde	34.1	30.1, 37.6	36.5	32.5, 40.2	31.6	27.6, 35.0
Cameroon	28.5	25.8, 31.5	30.8	27.9, 33.9	26.3	23.7, 29.1
Central African Republic	19.2	17.2, 21.5	20.9	18.8, 23.3	17.5	15.6, 19.6
Chad	8.5	7.5, 9.7	9.4	8.2, 10.7	7.6	6.7, 8.7
Comoros	0.3	0.2, 0.3	0.3	0.2, 0.4	0.2	0.2, 0.3
Congo	32.1	29.1, 35.5	34.4	31.3, 37.9	29.8	26.9, 33.0
Côte d'Ivoire	11.9	10.4, 13.5	13.1	11.5, 14.8	10.7	9.3, 12.0
Democratic Republic of the Congo	22.9	20.6, 25.3	24.8	22.4, 27.3	20.9	18.8, 23.3
Equatorial Guinea	36.1	32.7, 39.8	38.4	35.0, 42.2	33.6	30.3, 37.3
Eritrea	5.6	4.8, 6.6	6.2	5.3, 7.3	5.0	4.3, 5.9
Eswatini	13.1	11.4, 15.1	14.4	12.7, 16.5	11.9	10.1, 13.7
Ethiopia	7.5	6.5, 8.9	8.3	7.2, 9.8	6.7	5.8, 7.9
Gabon	29.9	26.9, 33.4	32.1	29.0, 35.7	27.6	24.8, 31.1
Gambia	6.9	5.3, 8.9	7.4	5.7, 9.4	6.5	5.0, 8.3
Ghana	21.2	18.8, 23.6	23.0	20.5, 25.7	19.3	17.1, 21.5
Guinea	3.7	3.0, 4.5	4.1	3.3, 4.9	3.3	2.6, 4.0
Guinea-Bissau	10.6	9.4, 12.0	11.7	10.4, 13.3	9.5	8.4, 10.8
Kenya	12.8	11.2, 14.6	14.0	12.4, 15.9	11.5	10.1, 13.2
Lesotho	9.1	7.8, 10.6	10.0	8.7, 11.6	8.2	6.9, 9.5
Liberia	21.2	18.6, 23.7	23.0	20.3, 25.9	19.3	16.8, 21.5
Madagascar	12.3	10.7, 14.0	13.5	11.7, 15.3	11.1	9.6, 12.7
Malawi	12.3	10.8, 14.1	13.6	11.9, 15.5	11.1	9.7, 12.8
Mali	5.0	3.9, 6.4	5.5	4.3, 7.0	4.4	3.4, 5.8
Mauritania	0.5	0.4, 0.7	0.6	0.4, 0.7	0.4	0.3, 0.6
Mauritius	24.6	21.8, 27.9	26.6	23.6, 30.1	22.6	20.0, 25.6

Table A2.1.6 *continued*

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
Mozambique	9.6	8.4, 11.1	10.6	9.3, 12.2	8.7	7.6, 10.0
Namibia	11.0	9.5, 12.7	12.1	10.7, 14.0	9.9	8.4, 11.5
Niger	2.8	2.1, 3.7	3.2	2.4, 4.1	2.5	1.9, 3.3
Nigeria	10.2	9.0, 11.7	11.3	9.9, 12.8	9.2	8.1, 10.5
Rwanda	15.5	13.6, 17.6	16.9	14.9, 19.2	14.0	12.3, 16.0
Sao Tome and Principe	31.0	27.1, 34.5	33.4	29.5, 37.1	28.7	24.8, 32.0
Senegal	3.1	2.4, 4.0	3.4	2.6, 4.4	2.8	2.1, 3.6
Seychelles	41.6	38.1, 45.3	44.0	40.5, 47.8	39.1	35.4, 42.6
Sierra Leone	5.5	4.5, 6.6	6.5	5.4, 7.7	4.5	3.7, 5.4
South Africa	14.1	12.3, 16.2	15.4	13.6, 17.6	12.7	10.9, 14.7
South Sudan	–	–	–	–	–	–
Togo	16.5	14.2, 18.7	18.0	15.6, 20.4	14.9	12.8, 16.9
Uganda	22.6	20.0, 25.9	24.6	21.7, 27.9	20.7	18.3, 23.9
United Republic of Tanzania	13.3	11.4, 15.8	14.5	12.6, 17.2	12.0	10.3, 14.3
Zambia	17.6	15.4, 20.0	19.2	16.9, 21.7	16.0	14.0, 18.3
Zimbabwe	8.5	7.3, 9.9	9.5	8.2, 10.9	7.7	6.5, 9.0
REGION OF THE AMERICAS						
Antigua and Barbuda	37.5	34.5, 40.6	39.8	36.7, 43.1	35.2	32.2, 38.1
Argentina	57.7	54.4, 61.2	59.8	56.3, 63.4	55.6	52.4, 59.0
Bahamas	33.0	30.1, 36.1	35.2	32.3, 38.5	30.9	27.9, 33.7
Barbados	37.9	34.8, 41.0	40.2	37.0, 43.4	35.5	32.5, 38.5
Belize	29.6	26.8, 32.5	31.7	28.9, 34.8	27.4	24.8, 30.0
Bolivia (Plurinational State of)	46.8	44.3, 49.3	48.9	46.3, 51.7	44.6	42.2, 46.9
Brazil	40.8	36.8, 45.4	42.9	39.0, 47.8	38.5	34.5, 43.0
Canada	54.9	52.3, 57.6	57.2	54.7, 59.9	52.5	49.8, 55.1
Chile	57.8	54.5, 61.3	59.9	56.4, 63.4	55.7	52.5, 59.1
Colombia	23.7	21.1, 26.3	25.5	22.8, 28.3	21.8	19.5, 24.3
Costa Rica	22.1	19.7, 24.7	23.8	21.2, 26.6	20.4	18.1, 22.7
Cuba	31.9	29.2, 34.8	34.1	31.3, 37.2	29.7	27.0, 32.4
Dominica	31.1	28.3, 33.9	33.3	30.5, 36.4	28.9	26.2, 31.6
Dominican Republic	34.2	31.2, 37.1	36.4	33.4, 39.5	31.9	29.0, 34.6

Table A2.1.6 *continued*

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
Ecuador	45.8	43.1, 48.4	47.9	45.1, 50.8	43.6	41.0, 46.0
El Salvador	20.3	17.9, 22.7	21.9	19.4, 24.6	18.6	16.4, 20.7
Grenada	36.2	33.2, 39.2	38.4	35.3, 41.7	33.8	30.9, 36.7
Guatemala	17.4	15.2, 19.8	18.9	16.5, 21.5	15.9	13.8, 18.0
Guyana	27.3	24.8, 30.0	29.3	26.7, 32.2	25.2	22.7, 27.6
Haiti	24.3	21.8, 27.0	26.3	23.7, 29.1	22.4	19.8, 24.8
Honduras	19.6	17.3, 22.0	21.1	18.7, 23.9	17.9	15.8, 20.0
Jamaica	26.3	23.7, 29.0	28.3	25.6, 31.2	24.2	21.6, 26.7
Mexico	25.8	23.1, 28.6	27.6	24.8, 30.6	23.9	21.4, 26.5
Nicaragua	20.7	18.3, 23.2	22.4	19.8, 25.2	19.0	16.8, 21.2
Panama	28.7	25.8, 31.7	30.6	27.6, 33.7	26.7	23.9, 29.6
Paraguay	33.0	29.5, 37.3	35.1	31.3, 39.8	30.9	27.5, 34.7
Peru	52.8	50.5, 55.2	54.8	52.4, 57.3	50.8	48.6, 53.0
Saint Kitts and Nevis	35.4	32.4, 38.3	37.6	34.7, 40.7	33.1	30.2, 35.9
Saint Lucia	38.7	35.6, 41.9	41.0	37.8, 44.3	36.3	33.3, 39.4
Saint Vincent and the Grenadines	33.0	30.2, 36.0	35.2	32.2, 38.4	30.7	28.0, 33.5
Suriname	27.2	24.6, 30.0	29.2	26.5, 32.2	25.1	22.6, 27.8
Trinidad and Tobago	31.7	29.0, 34.6	33.9	31.1, 36.9	29.5	26.8, 32.2
United States of America	58.1	55.5, 60.7	60.2	57.7, 62.9	55.8	53.2, 58.3
Uruguay	54.3	50.9, 58.0	56.5	53.0, 60.2	52.1	48.7, 55.7
Venezuela (Bolivarian Republic of)	20.4	18.0, 23.0	22.0	19.5, 24.8	18.8	16.5, 21.0
EASTERN MEDITERRANEAN REGION						
Afghanistan	0.6	0.4, 0.8	0.6	0.5, 0.9	0.5	0.4, 0.7
Bahrain	5.9	4.8, 7.3	6.5	5.2, 8.1	5.3	4.2, 6.5
Djibouti	1.8	1.4, 2.3	1.9	1.5, 2.5	1.6	1.2, 2.1
Egypt	2.2	1.9, 2.6	2.5	2.1, 2.9	2.0	1.7, 2.3
Iran (Islamic Republic of)	0.4	0.3, 0.5	0.4	0.3, 0.6	0.3	0.2, 0.4
Iraq	2.1	1.8, 2.5	2.3	2.0, 2.7	1.9	1.6, 2.2
Jordan	2.2	1.9, 2.5	2.4	2.1, 2.8	1.9	1.6, 2.2
Kuwait	0.2	0.1, 0.3	0.2	0.1, 0.3	0.2	0.1, 0.2
Lebanon	4.7	3.7, 6.0	5.2	4.1, 6.6	4.2	3.3, 5.3

Table A2.1.6 *continued*

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
Libya	0.4	0.3, 0.4	0.4	0.3, 0.5	0.3	0.2, 0.4
Morocco	2.1	1.8, 2.5	2.3	2.0, 2.7	1.9	1.6, 2.2
Oman	3.6	3.0, 4.2	4.0	3.3, 4.7	3.2	2.7, 3.7
Pakistan	0.4	0.3, 0.6	0.5	0.3, 0.6	0.4	0.3, 0.6
Qatar	10.0	7.6, 12.7	10.8	8.2, 13.8	8.9	6.7, 11.3
Saudi Arabia	0.4	0.3, 0.5	0.5	0.4, 0.6	0.4	0.3, 0.5
Somalia	0.3	0.2, 0.4	0.3	0.2, 0.4	0.2	0.2, 0.3
Sudan	2.1	1.8, 2.5	2.3	2.0, 2.8	1.9	1.6, 2.2
Syrian Arab Republic	0.4	0.3, 0.5	0.5	0.4, 0.6	0.4	0.3, 0.5
Tunisia	2.7	2.3, 3.1	3.0	2.5, 3.5	2.4	2.0, 2.8
United Arab Emirates	4.9	3.9, 6.1	6.8	5.4, 8.3	2.1	1.7, 2.6
Yemen	0.3	0.2, 0.4	0.3	0.3, 0.5	0.3	0.2, 0.4
EUROPEAN REGION						
Albania	22.0	18.6, 26.0	22.2	18.8, 26.2	21.8	18.3, 25.8
Andorra	67.7	65.2, 70.0	69.8	67.5, 72.1	65.4	62.8, 67.8
Armenia	33.0	29.7, 36.2	35.1	31.8, 38.5	30.7	27.5, 33.8
Austria	68.7	66.2, 71.1	70.7	68.4, 73.1	66.5	63.9, 68.9
Azerbaijan	5.4	4.3, 6.7	5.9	4.7, 7.3	4.8	3.8, 6.0
Belarus	56.0	52.5, 59.2	58.2	54.7, 61.5	53.7	50.3, 56.8
Belgium	65.0	62.4, 67.6	67.2	64.7, 69.8	62.7	60.0, 65.3
Bosnia and Herzegovina	23.1	20.3, 26.2	25.0	22.1, 28.3	21.1	18.5, 23.9
Bulgaria	50.2	47.5, 53.2	52.6	49.9, 55.7	47.6	45.0, 50.4
Croatia	54.2	51.4, 56.9	56.5	53.7, 59.2	51.6	49.0, 54.4
Cyprus	48.3	44.9, 51.8	50.9	47.5, 54.6	45.6	42.3, 48.9
Czechia	63.2	60.6, 65.7	65.3	62.7, 67.8	60.9	58.3, 63.5
Denmark	66.0	63.3, 68.5	68.1	65.6, 70.6	63.7	60.9, 66.3
Estonia	65.1	62.2, 68.0	67.0	64.2, 69.9	63.1	60.1, 66.0
Finland	66.2	63.7, 68.6	68.4	66.0, 70.8	63.9	61.2, 66.4
France	64.9	62.4, 67.5	67.1	64.6, 69.7	62.6	60.0, 65.1
Georgia	40.0	36.6, 43.7	42.2	38.8, 46.0	37.6	34.3, 41.2
Germany	67.8	65.4, 70.3	69.9	67.5, 72.4	65.6	63.0, 68.0

Table A2.1.6 *continued*

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
Greece	55.2	52.2, 58.1	57.7	54.8, 60.7	52.5	49.4, 55.3
Hungary	58.3	55.7, 61.0	60.6	58.0, 63.2	55.9	53.3, 58.6
Iceland	66.3	63.6, 68.9	68.5	65.9, 71.0	64.1	61.2, 66.7
Ireland	74.4	71.9, 76.7	76.1	73.7, 78.4	72.6	70.1, 74.9
Israel	39.4	35.9, 43.0	41.9	38.4, 45.7	36.8	33.3, 40.1
Italy	61.1	58.4, 63.7	63.5	60.8, 66.1	58.6	55.8, 61.2
Kazakhstan	10.3	8.6, 12.2	11.2	9.5, 13.4	9.2	7.7, 11.0
Kyrgyzstan	6.5	5.3, 7.9	7.2	5.9, 8.7	5.8	4.7, 7.1
Latvia	66.3	63.6, 68.9	68.2	65.5, 70.8	64.3	61.6, 67.0
Lithuania	65.7	63.0, 68.5	67.6	64.9, 70.4	63.8	61.0, 66.5
Luxembourg	76.7	73.8, 79.2	78.2	75.4, 80.7	75.2	72.1, 77.7
Malta	65.3	62.6, 67.7	67.5	65.0, 69.9	62.9	60.1, 65.4
Monaco	–	–	–	–	–	–
Montenegro	44.0	41.0, 47.2	46.5	43.4, 49.9	41.4	38.5, 44.4
Netherlands (Kingdom of the)	64.9	62.1, 67.5	67.1	64.4, 69.7	62.5	59.7, 65.2
North Macedonia	22.1	19.3, 25.1	23.9	20.9, 27.1	20.1	17.7, 22.8
Norway	63.6	60.7, 66.4	65.9	63.0, 68.6	61.3	58.2, 64.0
Poland	60.1	57.5, 62.7	62.3	59.8, 65.0	57.7	55.1, 60.3
Portugal	66.0	63.5, 68.4	68.3	65.9, 70.6	63.7	61.0, 66.1
Republic of Moldova	55.0	51.5, 58.2	57.3	53.8, 60.6	52.7	49.2, 55.8
Romania	63.9	60.8, 67.4	66.0	63.1, 69.6	61.6	58.4, 65.0
Russian Federation	37.3	34.1, 40.8	39.8	36.5, 43.4	34.7	31.6, 38.0
San Marino	–	–	–	–	–	–
Serbia	48.5	45.6, 51.3	50.9	48.1, 53.9	45.8	43.0, 48.5
Slovakia	59.1	56.6, 61.8	61.4	58.9, 64.1	56.7	54.2, 59.3
Slovenia	59.0	56.4, 61.7	61.3	58.6, 64.0	56.6	54.0, 59.2
Spain	66.1	63.6, 68.5	68.3	65.9, 70.6	63.7	61.2, 66.1
Sweden	64.4	61.7, 67.0	66.6	64.0, 69.2	62.0	59.2, 64.6
Switzerland	69.5	66.9, 72.0	71.5	68.9, 74.0	67.4	64.7, 69.9
Tajikistan	3.9	3.1, 4.8	4.3	3.4, 5.3	3.4	2.7, 4.3
Türkiye	3.1	2.7, 3.7	3.5	3.0, 4.1	2.8	2.4, 3.2

Table A2.1.6 *continued*

Country	Current drinkers, 15–19 years (1)					
	Both sexes	95% CI	Males	95% CI	Females	95% CI
Turkmenistan	5.9	4.8, 7.2	6.5	5.3, 7.9	5.2	4.2, 6.4
Ukraine	51.1	47.5, 54.4	53.4	49.7, 56.9	48.7	45.1, 51.8
United Kingdom of Great Britain and Northern Ireland	65.6	63.0, 68.1	67.8	65.3, 70.3	63.2	60.7, 65.7
Uzbekistan	4.9	3.9, 6.1	5.4	4.4, 6.7	4.4	3.4, 5.5
SOUTH-EAST ASIA REGION						
Bangladesh	1.5	1.2, 2.0	1.7	1.4, 2.2	1.4	1.1, 1.8
Bhutan	11.9	10.2, 13.7	13.0	11.3, 15.0	10.7	9.1, 12.3
Democratic People's Republic of Korea	35.3	30.2, 41.3	37.9	32.7, 44.1	32.6	27.5, 38.3
India	12.8	11.1, 14.8	13.9	12.1, 16.2	11.4	9.9, 13.2
Indonesia	3.0	2.4, 3.7	3.3	2.6, 4.2	2.6	2.1, 3.3
Maldives	1.4	1.0, 1.8	1.5	1.1, 2.0	1.2	0.9, 1.6
Myanmar	18.7	16.5, 21.2	20.3	17.9, 23.1	17.0	14.9, 19.3
Nepal	11.2	9.7, 12.9	12.3	10.7, 14.2	10.1	8.7, 11.6
Sri Lanka	18.3	16.1, 20.9	19.9	17.5, 22.7	16.7	14.7, 19.0
Thailand	30.3	27.3, 33.7	32.5	29.4, 36.1	28.0	25.1, 31.1
Timor-Leste	16.3	14.1, 19.0	17.8	15.3, 20.7	14.8	12.7, 17.2
WESTERN PACIFIC REGION						
Australia	69.3	66.6, 71.9	71.3	68.7, 73.7	67.2	64.4, 69.9
Brunei Darussalam	15.8	12.9, 19.3	17.2	14.0, 20.8	14.3	11.7, 17.6
Cambodia	30.6	27.6, 34.0	32.9	29.9, 36.4	28.3	25.3, 31.6
China	35.9	30.8, 41.9	38.4	33.2, 44.6	33.1	28.0, 38.8
Cook Islands	24.3	21.6, 27.5	26.4	23.5, 29.6	22.6	19.9, 25.6
Fiji	13.8	12.2, 15.6	15.1	13.4, 17.1	12.5	11.1, 14.2
Japan	56.1	53.1, 58.8	58.4	55.5, 61.1	53.7	50.7, 56.4
Kiribati	10.4	9.1, 11.9	11.5	10.1, 13.2	9.4	8.2, 10.7
Lao People's Democratic Republic	37.1	33.8, 40.7	39.5	36.2, 43.3	34.6	31.2, 38.1
Malaysia	5.6	4.5, 6.9	6.1	5.0, 7.7	4.9	4.0, 6.2
Marshall Islands	–	–	–	–	–	–
Micronesia (Federated States of)	12.3	10.9, 13.9	13.4	11.9, 15.3	11.1	9.7, 12.5
Mongolia	35.6	32.4, 38.9	37.7	34.5, 41.3	33.3	30.1, 36.5
Nauru	14.6	12.9, 16.5	15.9	14.2, 18.0	13.3	11.6, 15.0

Table A2.1.6 *continued*

	Current drinkers, 15–19 years (1)					
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI
New Zealand	68.9	66.2, 71.4	70.9	68.4, 73.4	66.8	64.0, 69.4
Niue	21.1	18.6, 23.9	23.2	20.6, 26.2	19.7	17.3, 22.4
Palau	–	–	–	–	–	–
Papua New Guinea	11.6	10.2, 13.2	12.6	11.2, 14.4	10.4	9.1, 11.8
Philippines	25.5	22.8, 28.6	27.5	24.7, 30.8	23.4	20.8, 26.2
Republic of Korea	58.7	55.8, 61.3	60.9	58.0, 63.6	56.4	53.4, 58.9
Samoa	13.1	11.6, 14.8	14.3	12.7, 16.2	11.8	10.4, 13.4
Singapore	46.9	42.1, 51.7	49.0	44.1, 54.1	44.6	39.9, 49.1
Solomon Islands	11.5	10.1, 13.1	12.6	11.1, 14.3	10.4	9.1, 11.8
Tonga	10.5	9.1, 12.0	11.5	10.0, 13.2	9.4	8.2, 10.7
Tuvalu	11.4	10.0, 13.0	12.4	11.0, 14.2	10.2	8.9, 11.6
Vanuatu	12.2	10.8, 13.8	13.3	11.9, 15.2	11.0	9.7, 12.5
Viet Nam	33.9	30.6, 37.3	36.2	33.0, 39.8	31.4	28.1, 34.8

"–" Data not available
CI = confidence intervals
(1) 2019, 15-19 years population, in %

Table A2.1.7 Heavy episodic drinking (HED) and heavy continuous drinkers in the 15–19 years population

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
AFRICAN REGION									
Algeria	0.6	0.5, 0.7	0.7	0.6, 0.8	0.5	0.4, 0.5	<0.1	<0.1	<0.1
Angola	28.6	27.9, 29.3	31.0	30.3, 31.7	26.1	25.3, 26.8	0.8	1.5	0.1
Benin	14.6	13.8, 15.4	16.4	15.6, 17.3	12.6	11.8, 13.3	2.2	3.6	0.8
Botswana	8.4	7.9, 9.0	9.5	8.9, 10.1	7.1	6.7, 7.6	1.9	3.0	0.8
Burkina Faso	7.4	6.9, 7.8	8.4	7.9, 8.9	6.2	5.8, 6.7	2.3	3.3	1.2
Burundi	10.7	10.1, 11.2	12.0	11.4, 12.5	9.2	8.7, 9.7	0.5	0.9	<0.1
Cabo Verde	26.4	25.6, 27.3	28.9	28.0, 29.8	23.6	22.7, 24.5	1.0	1.8	0.2
Cameroon	17.9	17.0, 18.8	20.0	19.0, 21.0	15.5	14.6, 16.4	2.8	4.5	1.0
Central African Republic	15.6	14.8, 16.3	17.2	16.4, 18.0	13.8	13.1, 14.5	<0.1	<0.1	<0.1
Chad	4.7	4.3, 5.0	5.3	5.0, 5.7	3.9	3.6, 4.2	0.5	0.9	0.1
Comoros	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Congo	28.5	27.7, 29.3	30.9	30.1, 31.7	25.9	25.1, 26.8	1.1	1.9	0.2
Côte d'Ivoire	6.6	6.1, 7.0	7.5	7.0, 8.0	5.6	5.1, 6.0	0.2	0.4	<0.1
Democratic Republic of the Congo	19.8	19.1, 20.4	21.6	20.9, 22.3	17.7	17.0, 18.4	<0.1	<0.1	<0.1
Equatorial Guinea	30.7	29.5, 31.9	33.2	32.0, 34.4	27.8	26.6, 29.1	1.3	2.2	0.2
Eritrea	2.4	2.2, 2.7	2.8	2.6, 3.0	2.0	1.8, 2.2	<0.1	<0.1	<0.1
Eswatini	7.6	7.2, 8.1	8.6	8.1, 9.2	6.5	6.0, 6.9	1.8	2.8	0.8
Ethiopia	3.6	3.3, 3.9	4.2	3.8, 4.5	3.0	2.8, 3.3	0.6	1.0	0.2
Gabon	24.5	23.3, 25.6	26.7	25.6, 27.9	21.9	20.8, 23.1	1.3	2.4	0.3
Gambia	3.1	2.8, 3.3	3.4	3.1, 3.7	2.7	2.4, 2.9	<0.1	<0.1	<0.1
Ghana	12.8	12.1, 13.6	14.4	13.6, 15.1	11.0	10.3, 11.7	0.6	1.0	<0.1
Guinea	1.7	1.5, 1.8	1.9	1.7, 2.1	1.4	1.2, 1.5	<0.1	<0.1	<0.1
Guinea-Bissau	5.9	5.5, 6.4	6.8	6.3, 7.2	5.0	4.7, 5.4	0.6	1.0	0.1
Kenya	7.0	6.6, 7.5	8.0	7.5, 8.4	6.0	5.6, 6.4	0.2	0.4	<0.1
Lesotho	5.1	4.8, 5.5	5.8	5.4, 6.2	4.3	4.0, 4.7	0.8	1.3	0.2
Liberia	13.2	12.5, 13.9	14.7	14.0, 15.5	11.4	10.7, 12.1	0.3	0.5	<0.1
Madagascar	7.1	6.6, 7.5	8.0	7.5, 8.4	6.0	5.6, 6.4	<0.1	<0.1	<0.1
Malawi	6.8	6.4, 7.2	7.7	7.2, 8.2	5.8	5.4, 6.1	0.4	0.8	<0.1
Mali	2.7	2.5, 2.9	3.1	2.9, 3.3	2.3	2.1, 2.4	0.7	1.1	0.3

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Mauritania	0.2	0.2, 0.2	0.2	0.2, 0.3	0.2	0.1, 0.2	<0.1	<0.1	<0.1
Mauritius	11.1	10.2, 11.9	12.5	11.6, 13.4	9.3	8.5, 10.1	1.7	2.9	0.5
Mozambique	4.9	4.6, 5.3	5.6	5.2, 6.0	4.1	3.8, 4.4	0.1	0.2	<0.1
Namibia	6.3	5.9, 6.7	7.1	6.7, 7.6	5.3	4.9, 5.7	1.1	1.9	0.4
Niger	1.1	0.9, 1.2	1.3	1.1, 1.4	0.9	0.8, 1.0	<0.1	<0.1	<0.1
Nigeria	5.7	5.3, 6.1	6.5	6.0, 6.9	4.8	4.4, 5.1	0.6	1.1	0.2
Rwanda	10.0	9.5, 10.5	11.2	10.7, 11.8	8.6	8.2, 9.1	0.2	0.4	<0.1
Sao Tome and Principe	24.0	23.2, 24.8	26.4	25.6, 27.2	21.4	20.6, 22.2	0.7	1.2	<0.1
Senegal	1.4	1.2, 1.5	1.6	1.4, 1.7	1.1	1.0, 1.2	<0.1	<0.1	<0.1
Seychelles	25.7	24.3, 27.1	28.3	26.9, 29.8	22.2	20.9, 23.6	3.5	5.7	1.2
Sierra Leone	2.2	2.0, 2.4	2.7	2.5, 2.9	1.7	1.5, 1.9	<0.1	<0.1	<0.1
South Africa	7.2	6.6, 7.7	8.1	7.5, 8.7	6.0	5.5, 6.5	2.1	3.1	0.9
South Sudan	–	–	–	–	–	–	–	–	–
Togo	9.4	8.8, 10.0	10.5	9.9, 11.2	8.0	7.4, 8.6	<0.1	<0.1	<0.1
Uganda	13.5	12.8, 14.2	15.2	14.4, 15.9	11.6	10.9, 12.2	3.5	5.3	1.7
United Republic of Tanzania	7.0	6.5, 7.4	7.9	7.4, 8.5	5.9	5.4, 6.3	2.5	3.6	1.3
Zambia	12.7	12.2, 13.2	14.1	13.6, 14.7	11.1	10.6, 11.6	0.4	0.8	<0.1
Zimbabwe	4.8	4.5, 5.2	5.5	5.1, 5.9	4.1	3.8, 4.4	0.7	1.2	0.2
REGION OF THE AMERICAS									
Antigua and Barbuda	22.7	21.4, 23.9	25.1	23.8, 26.4	19.7	18.5, 20.9	2.3	3.9	0.7
Argentina	28.3	25.8, 30.8	31.4	28.8, 34.0	24.0	21.6, 26.4	1.6	2.9	0.3
Bahamas	18.7	17.5, 20.0	20.8	19.5, 22.1	16.3	15.1, 17.5	0.5	0.9	<0.1
Barbados	23.3	22.1, 24.5	25.8	24.5, 27.0	20.2	19.0, 21.5	3.0	4.9	1.0
Belize	17.6	16.5, 18.6	19.5	18.4, 20.6	15.2	14.2, 16.2	0.9	1.6	0.2
Bolivia (Plurinational State of)	27.9	25.4, 30.4	30.5	27.9, 33.0	24.4	21.9, 26.9	0.2	0.4	<0.1
Brazil	17.6	15.9, 19.4	19.8	17.9, 21.7	14.8	13.2, 16.5	3.4	5.6	1.2
Canada	25.8	24.3, 27.4	28.9	27.3, 30.5	21.8	20.4, 23.2	2.9	5.0	0.8
Chile	28.4	25.9, 30.9	31.6	29.0, 34.2	24.2	21.7, 26.6	1.5	2.7	0.3
Colombia	12.4	11.6, 13.3	13.8	12.9, 14.8	10.6	9.8, 11.4	0.8	1.4	0.1
Costa Rica	11.1	10.3, 12.0	12.4	11.5, 13.3	9.5	8.7, 10.3	0.3	0.5	<0.1

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Cuba	18.9	17.9, 20.0	21.0	19.9, 22.1	16.4	15.3, 17.4	1.1	2.0	0.2
Dominica	18.3	17.3, 19.4	20.4	19.3, 21.5	15.9	14.9, 16.9	0.9	1.7	0.2
Dominican Republic	20.3	19.1, 21.4	22.5	21.3, 23.7	17.6	16.5, 18.7	1.4	2.5	0.3
Ecuador	26.6	24.1, 29.0	29.0	26.5, 31.6	23.2	20.8, 25.6	<0.1	0.2	<0.1
El Salvador	10.5	9.8, 11.3	11.7	10.9, 12.5	8.9	8.2, 9.6	0.4	0.7	<0.1
Grenada	21.8	20.6, 23.0	24.1	22.9, 25.4	18.9	17.7, 20.1	2.1	3.5	0.6
Guatemala	8.3	7.7, 9.0	9.3	8.6, 10.1	7.1	6.5, 7.7	<0.1	<0.1	<0.1
Guyana	12.3	11.3, 13.3	13.9	12.8, 14.9	10.4	9.5, 11.3	0.9	1.6	0.2
Haiti	14.0	13.1, 14.9	15.6	14.7, 16.6	12.1	11.2, 12.9	0.2	0.4	<0.1
Honduras	10.0	9.3, 10.8	11.2	10.4, 12.0	8.5	7.9, 9.2	0.2	0.5	<0.1
Jamaica	15.0	14.1, 16.0	16.7	15.7, 17.7	13.0	12.1, 13.8	0.2	0.4	<0.1
Mexico	13.7	12.7, 14.6	15.2	14.2, 16.2	11.7	10.8, 12.6	1.2	2.1	0.3
Nicaragua	10.9	10.1, 11.6	12.1	11.3, 13.0	9.3	8.5, 10.0	0.5	0.9	<0.1
Panama	15.2	14.1, 16.3	16.9	15.7, 18.1	13.1	12.0, 14.1	1.4	2.5	0.4
Paraguay	13.3	11.8, 14.7	14.9	13.3, 16.4	11.1	9.8, 12.5	1.0	1.7	0.2
Peru	33.8	31.2, 36.5	36.8	34.2, 39.5	29.9	27.2, 32.6	1.6	2.8	0.3
Saint Kitts and Nevis	20.7	19.5, 22.0	23.0	21.7, 24.3	18.0	16.8, 19.3	1.2	2.2	0.2
Saint Lucia	23.7	22.4, 25.0	26.2	24.9, 27.5	20.6	19.4, 21.9	3.0	4.9	1.0
Saint Vincent and the Grenadines	17.9	16.7, 19.0	19.9	18.7, 21.1	15.3	14.2, 16.4	1.5	2.6	0.3
Suriname	11.1	10.1, 12.1	12.6	11.5, 13.6	9.3	8.4, 10.2	1.6	2.7	0.4
Trinidad and Tobago	14.3	13.2, 15.5	16.1	14.8, 17.3	12.1	11.0, 13.2	1.2	2.0	0.2
United States of America	30.9	29.2, 32.5	34.3	32.6, 36.0	26.5	24.9, 28.1	2.8	4.8	0.7
Uruguay	25.5	23.1, 27.8	28.3	25.8, 30.8	21.6	19.3, 23.8	0.7	1.3	<0.1
Venezuela (Bolivarian Republic of)	10.0	9.2, 10.8	11.2	10.3, 12.0	8.5	7.8, 9.2	<0.1	0.2	<0.1
EASTERN MEDITERRANEAN REGION									
Afghanistan	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Bahrain	1.7	1.5, 1.9	2.0	1.7, 2.2	1.4	1.2, 1.6	<0.1	<0.1	<0.1
Djibouti	0.6	0.5, 0.6	0.7	0.6, 0.8	0.5	0.4, 0.5	<0.1	<0.1	<0.1
Egypt	0.5	0.4, 0.5	0.6	0.5, 0.6	0.4	0.3, 0.4	<0.1	<0.1	<0.1

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Iran (Islamic Republic of)	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Iraq	0.5	0.4, 0.6	0.6	0.5, 0.6	0.4	0.3, 0.4	<0.1	<0.1	<0.1
Jordan	0.5	0.4, 0.6	0.6	0.5, 0.7	0.4	0.3, 0.5	<0.1	<0.1	<0.1
Kuwait	0.0	0.0, 0.0	0.0	0.0, 0.1	0.0	0.0, 0.0	<0.1	<0.1	<0.1
Lebanon	1.5	1.3, 1.6	1.7	1.5, 1.9	1.2	1.0, 1.3	<0.1	0.2	<0.1
Libya	0.1	0.0, 0.1	0.1	0.0, 0.1	0.0	0.0, 0.1	<0.1	<0.1	<0.1
Morocco	0.5	0.5, 0.6	0.6	0.6, 0.7	0.4	0.4, 0.5	<0.1	<0.1	<0.1
Oman	0.9	0.8, 1.0	1.1	1.0, 1.2	0.7	0.6, 0.8	<0.1	<0.1	<0.1
Pakistan	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Qatar	2.9	2.5, 3.4	3.3	2.9, 3.8	2.4	2.0, 2.7	<0.1	<0.1	<0.1
Saudi Arabia	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Somalia	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.0, 0.1	<0.1	<0.1	<0.1
Sudan	0.3	0.2, 0.4	0.4	0.3, 0.4	0.2	0.2, 0.3	<0.1	<0.1	<0.1
Syrian Arab Republic	0.1	0.1, 0.1	0.1	0.1, 0.1	0.1	0.1, 0.1	<0.1	<0.1	<0.1
Tunisia	0.8	0.7, 0.9	1.0	0.8, 1.1	0.7	0.6, 0.7	0.3	0.4	<0.1
United Arab Emirates	1.7	1.5, 1.9	2.5	2.2, 2.7	0.6	0.6, 0.7	0.4	0.7	<0.1
Yemen	0.1	0.0, 0.1	0.1	0.1, 0.1	0.0	0.0, 0.1	<0.1	<0.1	<0.1
EUROPEAN REGION									
Albania	6.0	5.3, 6.6	6.5	5.8, 7.2	5.3	4.6, 5.9	0.5	0.9	<0.1
Andorra	41.8	40.2, 43.5	46.0	44.4, 47.6	36.6	35.0, 38.3	3.2	5.5	0.8
Armenia	22.3	21.3, 23.3	24.4	23.3, 25.4	19.6	18.6, 20.6	0.9	1.7	0.2
Austria	34.5	32.9, 36.2	38.7	36.9, 40.4	29.4	27.8, 31.1	4.3	7.1	1.3
Azerbaijan	2.1	1.9, 2.3	2.4	2.1, 2.6	1.7	1.5, 1.8	0.3	0.5	<0.1
Belarus	26.1	23.8, 28.5	29.3	26.8, 31.8	22.0	19.8, 24.3	4.1	6.8	1.4
Belgium	30.6	29.0, 32.2	34.4	32.8, 36.1	25.8	24.3, 27.3	3.0	5.2	0.8
Bosnia and Herzegovina	7.5	6.8, 8.3	8.7	7.9, 9.5	6.2	5.6, 6.9	1.2	2.1	0.3
Bulgaria	20.2	18.9, 21.6	22.9	21.5, 24.4	16.7	15.5, 18.0	4.3	6.9	1.5
Croatia	27.5	26.1, 28.9	30.7	29.2, 32.1	23.4	22.1, 24.7	2.2	3.8	0.5
Cyprus	17.8	16.4, 19.2	20.3	18.8, 21.8	14.8	13.5, 16.0	1.6	2.9	0.3
Czechia	38.3	36.7, 39.9	42.2	40.6, 43.8	33.5	31.9, 35.1	5.2	8.3	1.8
Denmark	32.3	30.7, 33.9	36.2	34.6, 37.9	27.4	25.9, 29.0	2.5	4.3	0.5

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Estonia	29.4	26.5, 32.3	33.0	30.0, 36.1	24.8	22.0, 27.5	4.0	6.7	1.2
Finland	37.5	36.0, 39.1	41.6	40.0, 43.2	32.4	30.9, 34.0	2.3	4.1	0.5
France	30.7	29.2, 32.3	34.6	33.0, 36.3	26.0	24.5, 27.4	3.9	6.6	1.2
Georgia	22.3	21.0, 23.6	24.7	23.3, 26.0	19.0	17.8, 20.2	5.9	8.7	2.8
Germany	33.6	31.9, 35.3	37.6	35.9, 39.4	28.5	26.9, 30.1	4.4	7.2	1.3
Greece	24.8	23.5, 26.2	27.9	26.4, 29.3	20.8	19.5, 22.1	1.2	2.1	0.2
Hungary	34.1	32.6, 35.5	37.6	36.2, 39.1	29.5	28.1, 31.0	3.4	5.7	1.0
Iceland	39.6	37.9, 41.3	43.7	42.0, 45.4	34.6	32.9, 36.3	1.4	2.6	0.2
Ireland	45.6	43.3, 47.8	50.2	48.0, 52.4	40.6	38.3, 42.9	3.8	6.5	1.0
Israel	13.0	11.9, 14.1	14.7	13.5, 15.9	10.8	9.8, 11.8	<0.1	0.1	<0.1
Italy	29.0	27.5, 30.4	32.5	31.0, 34.0	24.4	23.0, 25.8	1.8	3.1	0.3
Kazakhstan	4.2	3.8, 4.6	4.8	4.4, 5.2	3.5	3.1, 3.8	0.8	1.3	0.2
Kyrgyzstan	2.7	2.5, 2.9	3.1	2.8, 3.4	2.2	2.0, 2.4	0.8	1.3	0.3
Latvia	31.2	28.3, 34.1	35.0	32.0, 38.0	26.4	23.6, 29.1	5.6	8.9	2.0
Lithuania	30.2	27.3, 33.1	33.9	30.8, 36.9	25.5	22.7, 28.3	4.5	7.4	1.4
Luxembourg	48.7	44.5, 52.8	53.1	49.1, 57.1	43.7	39.4, 48.0	3.6	6.2	0.9
Malta	39.1	37.5, 40.7	43.1	41.5, 44.7	34.0	32.4, 35.7	1.7	3.1	0.3
Monaco	–	–	–	–	–	–	–	–	–
Montenegro	16.4	15.2, 17.7	18.7	17.4, 20.0	13.6	12.5, 14.7	3.2	5.3	1.0
Netherlands (Kingdom of the)	30.4	28.8, 31.9	34.2	32.6, 35.8	25.6	24.1, 27.1	2.4	4.2	0.5
North Macedonia	7.0	6.3, 7.7	8.0	7.3, 8.8	5.8	5.2, 6.4	0.6	1.1	0.1
Norway	29.6	28.0, 31.2	33.2	31.5, 34.9	24.9	23.4, 26.5	1.0	1.9	0.1
Poland	35.6	34.2, 37.1	39.3	37.8, 40.8	31.0	29.5, 32.4	4.1	6.8	1.3
Portugal	41.3	39.8, 42.9	45.4	43.9, 47.0	36.3	34.7, 37.9	3.5	5.9	0.9
Republic of Moldova	25.6	23.3, 27.9	28.7	26.3, 31.1	21.6	19.4, 23.7	3.9	6.5	1.3
Romania	40.1	38.5, 41.6	44.1	42.6, 45.6	35.2	33.6, 36.8	7.4	11.4	3.2
Russian Federation	15.6	13.6, 17.5	18.5	16.2, 20.7	11.5	10.0, 13.1	3.1	5.1	1.1
San Marino	–	–	–	–	–	–	–	–	–
Serbia	21.5	20.1, 22.8	24.1	22.7, 25.5	18.0	16.7, 19.2	1.9	3.3	0.4
Slovakia	34.8	33.3, 36.2	38.4	36.9, 39.9	30.1	28.7, 31.6	3.7	6.2	1.1
Slovenia	28.2	26.7, 29.8	31.7	30.0, 33.3	23.8	22.3, 25.3	3.9	6.5	1.2

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Spain	34.8	33.2, 36.4	38.8	37.2, 40.4	29.7	28.2, 31.3	3.5	5.9	0.9
Sweden	30.4	28.8, 31.9	34.1	32.5, 35.7	25.6	24.1, 27.0	2.4	4.2	0.5
Switzerland	35.1	33.3, 37.0	39.3	37.5, 41.2	30.0	28.3, 31.8	3.2	5.4	0.8
Tajikistan	1.3	1.2, 1.5	1.5	1.4, 1.7	1.1	0.9, 1.2	<0.1	<0.1	<0.1
Türkiye	0.9	0.8, 1.0	1.1	1.0, 1.2	0.8	0.7, 0.8	0.2	0.3	<0.1
Turkmenistan	2.3	2.1, 2.5	2.6	2.4, 2.9	1.9	1.7, 2.1	0.4	0.6	<0.1
Ukraine	19.9	17.8, 21.9	22.4	20.2, 24.6	16.4	14.6, 18.3	2.7	4.5	0.7
United Kingdom of Great Britain and Northern Ireland	31.9	30.4, 33.5	35.9	34.3, 37.5	27.1	25.6, 28.6	3.4	5.8	0.9
Uzbekistan	1.9	1.7, 2.1	2.2	2.0, 2.4	1.5	1.4, 1.7	0.3	0.5	<0.1
SOUTH-EAST ASIA REGION									
Bangladesh	0.2	0.2, 0.3	0.3	0.2, 0.3	0.2	0.1, 0.2	<0.1	<0.1	<0.1
Bhutan	6.1	5.6, 6.7	6.9	6.4, 7.5	5.2	4.7, 5.7	<0.1	<0.1	<0.1
Democratic People's Republic of Korea	13.4	5.0, 21.9	15.1	5.9, 24.4	11.1	3.7, 18.6	0.3	0.5	<0.1
India	6.3	5.7, 6.8	7.1	6.5, 7.7	5.2	4.8, 5.7	0.8	1.4	0.2
Indonesia	0.7	0.6, 0.8	0.8	0.7, 0.9	0.5	0.4, 0.6	<0.1	<0.1	<0.1
Maldives	0.4	0.4, 0.5	0.5	0.4, 0.6	0.3	0.3, 0.4	0.1	0.2	<0.1
Myanmar	9.4	8.7, 10.0	10.5	9.8, 11.2	7.9	7.3, 8.5	<0.1	0.1	<0.1
Nepal	5.9	5.4, 6.3	6.7	6.2, 7.1	4.9	4.5, 5.4	<0.1	<0.1	<0.1
Sri Lanka	8.3	7.7, 8.9	9.3	8.7, 10.0	7.0	6.4, 7.5	0.2	0.3	<0.1
Thailand	15.7	14.7, 16.7	17.6	16.5, 18.7	13.4	12.4, 14.3	2.0	3.3	0.6
Timor-Leste	8.0	7.3, 8.6	8.9	8.2, 9.6	6.8	6.2, 7.4	<0.1	<0.1	<0.1
WESTERN PACIFIC REGION									
Australia	38.0	35.2, 40.8	42.2	39.3, 45.0	32.8	30.0, 35.6	2.9	5.0	0.7
Brunei Darussalam	4.9	4.3, 5.5	5.6	4.9, 6.3	4.1	3.5, 4.7	<0.1	<0.1	<0.1
Cambodia	18.2	17.2, 19.1	20.2	19.2, 21.3	15.6	14.7, 16.6	2.2	3.7	0.7
China	11.5	3.5, 19.4	12.9	4.2, 21.7	9.4	2.5, 16.2	0.4	0.8	<0.1
Cook Islands	18.4	17.7, 19.0	20.4	19.7, 21.0	16.4	15.7, 17.0	3.1	5.0	1.5
Fiji	8.3	7.7, 8.8	9.3	8.7, 9.8	7.1	6.6, 7.5	0.5	0.9	<0.1
Japan	38.6	37.3, 39.9	41.9	40.6, 43.2	34.3	33.0, 35.7	1.3	2.3	0.2

Table A2.1.7 *continued*

	HED in the 15–19 years population (1)						Heavy continuous drinkers in the 15–19 years population (1)		
Country	Both sexes	95% CI	Males	95% CI	Females	95% CI	Both sexes	Males	Females
Kiribati	7.0	6.6, 7.3	7.8	7.5, 8.2	6.0	5.7, 6.4	<0.1	<0.1	<0.1
Lao People's Democratic Republic	24.9	23.9, 26.0	27.5	26.4, 28.6	21.8	20.7, 22.9	3.8	6.0	1.5
Malaysia	1.6	1.5, 1.8	1.9	1.7, 2.1	1.3	1.2, 1.5	<0.1	<0.1	<0.1
Marshall Islands	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	8.7	8.4, 9.1	9.7	9.4, 10.1	7.6	7.2, 7.9	<0.1	0.2	<0.1
Mongolia	20.9	19.8, 22.1	23.1	21.9, 24.3	18.1	17.0, 19.2	1.8	3.1	0.4
Nauru	10.4	10.0, 10.9	11.6	11.2, 12.1	9.1	8.7, 9.5	0.2	0.4	<0.1
New Zealand	39.9	37.2, 42.6	44.1	41.4, 46.9	34.8	32.1, 37.5	2.8	4.9	0.6
Niue	15.9	15.3, 16.4	17.9	17.4, 18.5	14.3	13.8, 14.9	2.3	4.1	1.1
Palau	–	–	–	–	–	–	–	–	–
Papua New Guinea	8.0	7.7, 8.4	8.9	8.5, 9.3	6.9	6.6, 7.3	<0.1	<0.1	<0.1
Philippines	13.2	12.4, 14.1	14.8	13.9, 15.7	11.2	10.4, 12.0	1.1	2.0	0.3
Republic of Korea	40.8	39.4, 42.1	44.1	42.8, 45.4	36.3	34.9, 37.7	1.7	3.0	0.3
Samoa	9.3	9.0, 9.7	10.4	10.0, 10.8	8.1	7.7, 8.5	0.1	0.3	<0.1
Singapore	19.5	17.3, 21.8	21.8	19.5, 24.2	16.7	14.6, 18.8	<0.1	<0.1	<0.1
Solomon Islands	8.1	7.7, 8.4	9.0	8.6, 9.3	6.9	6.6, 7.3	<0.1	<0.1	<0.1
Tonga	6.6	6.2, 7.0	7.4	7.0, 7.8	5.7	5.3, 6.0	<0.1	<0.1	<0.1
Tuvalu	7.8	7.5, 8.2	8.7	8.3, 9.1	6.7	6.4, 7.1	<0.1	<0.1	<0.1
Vanuatu	8.7	8.3, 9.0	9.7	9.3, 10.0	7.5	7.2, 7.9	<0.1	0.2	<0.1
Viet Nam	22.4	21.4, 23.3	24.6	23.6, 25.7	19.5	18.5, 20.4	2.5	4.1	0.8

"–" Data not available
CI = confidence intervals
(1) 2019, 15-19 years population, in %

Table A2.1.8 Heavy episodic drinking (HED) and heavy continuous drinkers, 15–19 years among current drinkers

	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
Country	Both sexes	Males	Females	Both sexes	Males	Females
AFRICAN REGION						
Algeria	26.1	27.3	23.3	0.4	0.7	<0.1
Angola	90.3	91.1	88.8	2.5	4.4	0.5
Benin	61.2	63.3	57.5	9.2	13.8	3.5
Botswana	57.7	59.6	54.1	13.3	18.9	6.4
Burkina Faso	58.0	60.0	54.6	17.8	23.9	10.2
Burundi	64.4	66.0	61.1	3.1	5.2	0.6
Cabo Verde	77.6	79.2	74.5	2.9	5.0	0.6
Cameroon	62.8	65.0	58.9	9.7	14.6	3.9
Central African Republic	81.1	82.2	79.1	0.2	0.3	<0.1
Chad	54.8	56.6	51.5	5.8	9.1	1.6
Comoros	32.7	34.1	29.4	10.8	15.7	4.4
Congo	88.8	89.7	87.1	3.3	5.5	0.7
Côte d’Ivoire	55.2	57.0	51.9	1.9	3.3	0.3
Democratic Republic of the Congo	86.4	87.2	84.8	0.1	0.2	<0.1
Equatorial Guinea	85.1	86.4	82.8	3.5	5.8	0.7
Eritrea	43.6	45.3	40.3	0.8	1.3	<0.1
Eswatini	58.2	60.0	54.6	14.0	19.6	6.9
Ethiopia	48.4	50.2	45.0	7.8	11.9	2.6
Gabon	81.9	83.3	79.5	4.5	7.4	1.1
Gambia	44.4	46.1	41.2	<0.1	<0.1	<0.1
Ghana	60.6	62.4	57.1	2.6	4.4	0.5
Guinea	44.9	46.6	41.6	<0.1	<0.1	<0.1
Guinea-Bissau	55.9	57.8	52.6	5.4	8.6	1.5
Kenya	55.1	56.8	51.7	1.7	3.0	0.2
Lesotho	56.5	58.2	53.0	8.3	12.7	3.0
Liberia	62.3	64.1	59.0	1.4	2.4	0.2
Madagascar	57.6	59.1	54.5	<0.1	<0.1	<0.1
Malawi	55.1	56.9	51.7	3.5	5.8	0.7
Mali	54.3	56.2	50.9	15.0	20.7	7.6
Mauritania	39.1	40.7	35.6	<0.1	<0.1	<0.1

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Mauritius	44.9	47.1	41.1	7.0	11.0	2.3
Mozambique	51.0	52.7	47.6	1.3	2.2	0.1
Namibia	57.0	58.8	53.5	10.4	15.5	4.4
Niger	38.0	39.6	34.9	<0.1	<0.1	<0.1
Nigeria	55.3	57.2	52.0	6.1	9.5	1.8
Rwanda	64.7	66.3	61.5	1.5	2.6	0.2
Sao Tome and Principe	77.5	79.0	74.6	2.1	3.7	0.3
Senegal	43.6	45.3	40.3	<0.1	<0.1	<0.1
Seychelles	61.7	64.4	56.9	8.5	12.9	3.1
Sierra Leone	40.2	41.7	37.2	<0.1	<0.1	<0.1
South Africa	50.9	52.8	47.2	14.6	20.3	7.4
South Sudan	–	–	–	–	–	–
Togo	56.8	58.4	53.7	<0.1	<0.1	<0.1
Uganda	59.7	61.8	55.8	15.5	21.6	8.3
United Republic of Tanzania	52.5	54.6	49.0	18.7	24.9	11.1
Zambia	72.2	73.6	69.3	2.4	4.0	0.4
Zimbabwe	56.5	58.3	53.1	8.3	12.8	3.0
REGION OF THE AMERICAS						
Antigua and Barbuda	60.4	63.0	56.0	6.1	9.8	1.9
Argentina	49.0	52.6	43.2	2.8	4.9	0.5
Bahamas	56.7	59.1	52.7	1.4	2.5	0.2
Barbados	61.5	64.1	57.0	7.8	12.1	2.8
Belize	59.3	61.5	55.4	3.0	5.0	0.6
Bolivia (Plurinational State of)	59.6	62.3	54.7	0.5	0.9	<0.1
Brazil	43.3	46.1	38.5	8.4	13.0	3.1
Canada	47.1	50.6	41.5	5.4	8.7	1.5
Chile	49.1	52.7	43.4	2.6	4.5	0.5
Colombia	52.5	54.4	48.6	3.3	5.5	0.7
Costa Rica	50.3	52.1	46.6	1.1	2.0	0.1
Cuba	59.3	61.5	55.2	3.5	5.8	0.7
Dominica	59.0	61.3	55.1	3.1	5.2	0.6

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Dominican Republic	59.4	61.7	55.2	4.1	6.8	1.0
Ecuador	58.1	60.7	53.2	0.2	0.4	<0.1
El Salvador	51.8	53.6	48.1	1.8	3.1	0.2
Grenada	60.2	62.7	55.9	5.7	9.1	1.6
Guatemala	47.8	49.5	44.5	<0.1	0.2	<0.1
Guyana	45.2	47.3	41.4	3.2	5.4	0.6
Haiti	57.5	59.4	54.0	0.8	1.3	<0.1
Honduras	51.3	53.0	47.6	1.3	2.2	0.1
Jamaica	57.1	59.0	53.4	0.9	1.5	<0.1
Mexico	53.1	55.1	49.1	4.6	7.6	1.2
Nicaragua	52.4	54.2	48.7	2.4	4.0	0.4
Panama	53.0	55.2	48.8	5.0	8.1	1.3
Paraguay	40.2	42.4	36.1	2.9	4.9	0.5
Peru	64.1	67.2	58.9	3.0	5.1	0.6
Saint Kitts and Nevis	58.6	61.1	54.4	3.4	5.9	0.8
Saint Lucia	61.2	63.9	56.7	7.7	12.0	2.7
Saint Vincent and the Grenadines	54.1	56.4	49.8	4.5	7.4	1.1
Suriname	40.8	43.0	37.0	5.9	9.4	1.7
Trinidad and Tobago	45.1	47.4	41.0	3.7	6.0	0.8
United States of America	53.1	56.9	47.4	4.9	8.0	1.3
Uruguay	46.9	50.2	41.4	1.3	2.2	0.1
Venezuela (Bolivarian Republic of)	48.9	50.7	45.4	0.4	0.7	<0.1
EASTERN MEDITERRANEAN REGION						
Afghanistan	16.4	17.2	14.4	<0.1	<0.1	<0.1
Bahrain	29.0	30.2	26.2	0.3	0.5	<0.1
Djibouti	32.9	34.4	29.8	<0.1	0.1	<0.1
Egypt	21.4	22.4	19.0	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	25.1	26.3	22.3	9.2	13.7	3.4
Iraq	23.1	24.2	20.6	<0.1	<0.1	<0.1
Jordan	23.4	24.5	20.9	<0.1	<0.1	<0.1
Kuwait	22.4	23.3	19.6	<0.1	<0.1	<0.1

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Lebanon	31.1	32.4	28.1	2.0	3.3	0.3
Libya	15.4	16.2	13.5	<0.1	<0.1	<0.1
Morocco	26.0	27.2	23.3	0.4	0.7	<0.1
Oman	26.1	27.3	23.4	<0.1	0.1	<0.1
Pakistan	24.7	25.7	22.4	0.2	0.4	<0.1
Qatar	29.5	30.7	26.8	<0.1	<0.1	<0.1
Saudi Arabia	21.2	22.3	18.8	<0.1	<0.1	<0.1
Somalia	29.4	30.8	26.3	<0.1	<0.1	<0.1
Sudan	14.3	15.0	12.7	<0.1	<0.1	<0.1
Syrian Arab Republic	23.6	24.8	20.9	2.3	3.7	0.3
Tunisia	30.8	32.2	27.7	9.7	14.2	3.7
United Arab Emirates	35.0	36.5	30.3	8.9	10.3	2.1
Yemen	18.4	19.3	16.2	<0.1	<0.1	<0.1
EUROPEAN REGION						
Albania	27.2	29.2	24.1	2.4	4.2	0.4
Andorra	61.8	65.9	56.1	4.7	7.8	1.2
Armenia	67.6	69.5	63.7	2.8	4.7	0.5
Austria	50.3	54.7	44.3	6.3	10.1	1.9
Azerbaijan	38.5	40.1	35.2	5.7	8.7	1.5
Belarus	46.7	50.4	41.0	7.4	11.7	2.6
Belgium	47.0	51.2	41.2	4.6	7.7	1.2
Bosnia and Herzegovina	32.7	34.7	29.6	5.3	8.5	1.5
Bulgaria	40.3	43.6	35.2	8.5	13.1	3.2
Croatia	50.8	54.2	45.3	4.1	6.8	1.0
Cyprus	36.9	39.9	32.4	3.4	5.7	0.7
Czechia	60.7	64.7	54.9	8.2	12.8	3.0
Denmark	49.0	53.2	43.1	3.8	6.3	0.8
Estonia	45.2	49.3	39.3	6.1	9.9	1.9
Finland	56.7	60.8	50.8	3.5	6.0	0.8
France	47.4	51.6	41.5	6.1	9.8	1.8
Georgia	55.7	58.5	50.6	14.7	20.5	7.5

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Germany	49.5	53.8	43.5	6.4	10.2	2.0
Greece	45.0	48.3	39.6	2.2	3.7	0.3
Hungary	58.5	62.1	52.8	5.8	9.4	1.7
Iceland	59.7	63.8	53.9	2.1	3.8	0.3
Ireland	61.3	66.0	55.9	5.1	8.5	1.4
Israel	32.9	35.1	29.4	0.2	0.3	<0.1
Italy	47.4	51.2	41.6	2.9	4.9	0.5
Kazakhstan	41.0	42.7	37.6	7.6	11.6	2.5
Kyrgyzstan	41.4	43.1	38.0	12.3	17.7	5.6
Latvia	47.0	51.3	41.0	8.4	13.1	3.2
Lithuania	45.9	50.1	39.9	6.9	11.0	2.3
Luxembourg	63.5	68.0	58.1	4.7	7.9	1.2
Malta	59.9	63.8	54.1	2.6	4.6	0.5
Monaco	–	–	–	–	–	–
Montenegro	37.3	40.2	32.8	7.3	11.5	2.5
Netherlands (Kingdom of the)	46.8	51.0	41.0	3.7	6.3	0.8
North Macedonia	31.7	33.6	28.8	2.8	4.7	0.5
Norway	46.5	50.4	40.7	1.6	2.8	0.2
Poland	59.4	63.1	53.7	6.9	11.0	2.3
Portugal	62.6	66.6	56.9	5.3	8.7	1.5
Republic of Moldova	46.5	50.1	40.9	7.1	11.4	2.4
Romania	62.7	66.8	57.1	11.6	17.2	5.3
Russian Federation	41.7	46.4	33.3	8.4	12.9	3.1
San Marino	–	–	–	–	–	–
Serbia	44.3	47.3	39.2	4.0	6.6	0.9
Slovakia	58.8	62.5	53.1	6.3	10.1	2.0
Slovenia	47.9	51.7	42.1	6.7	10.6	2.1
Spain	52.7	56.8	46.6	5.3	8.7	1.5
Sweden	47.2	51.2	41.2	3.8	6.3	0.8
Switzerland	50.6	55.0	44.6	4.6	7.6	1.2
Tajikistan	34.2	35.7	31.1	0.3	0.6	<0.1

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Türkiye	30.0	31.3	27.0	5.4	8.5	1.4
Turkmenistan	38.9	40.6	35.7	6.2	9.6	1.8
Ukraine	38.8	41.9	33.7	5.2	8.4	1.4
United Kingdom of Great Britain and Northern Ireland	48.7	52.9	42.8	5.2	8.5	1.4
Uzbekistan	38.5	40.2	35.3	6.0	9.3	1.7
SOUTH-EAST ASIA REGION						
Bangladesh	15.2	16.0	13.5	<0.1	<0.1	<0.1
Bhutan	51.8	53.1	48.9	<0.1	<0.1	<0.1
Democratic People's Republic of Korea	38.0	40.0	34.2	0.8	1.4	<0.1
India	49.3	51.1	45.8	6.4	9.7	1.8
Indonesia	22.2	23.4	20.0	<0.1	<0.1	<0.1
Maldives	31.8	33.1	28.5	10.1	14.4	3.8
Myanmar	50.1	51.7	46.6	0.3	0.6	<0.1
Nepal	52.3	53.9	49.0	0.2	0.4	<0.1
Sri Lanka	45.2	46.9	41.7	0.9	1.5	<0.1
Thailand	51.9	54.1	47.7	6.5	10.2	2.0
Timor-Leste	48.7	50.0	46.0	<0.1	<0.1	<0.1
WESTERN PACIFIC REGION						
Australia	54.8	59.2	48.8	4.2	7.0	1.0
Brunei Darussalam	31.1	32.5	28.8	<0.1	<0.1	<0.1
Cambodia	59.3	61.6	55.2	7.1	11.2	2.4
China	32.0	33.7	28.3	1.2	2.1	0.1
Cook Islands	75.5	77.3	72.5	12.8	19.0	6.5
Fiji	59.7	61.4	56.3	3.5	5.8	0.7
Japan	68.8	71.8	63.8	2.3	3.9	0.4
Kiribati	66.8	68.1	63.9	<0.1	<0.1	<0.1
Lao People's Democratic Republic	67.2	69.5	62.9	10.2	15.3	4.2
Malaysia	29.6	31.0	26.9	<0.1	<0.1	<0.1
Marshall Islands	–	–	–	–	–	–
Micronesia (Federated States of)	71.2	72.5	68.3	0.8	1.3	<0.1
Mongolia	58.8	61.1	54.3	5.1	8.2	1.4

Table A2.1.8 *continued*

Country	HED among current drinkers, 15–19 years (1)			Heavy continuous drinkers among current drinkers, 15–19 years (1)		
	Both sexes	Males	Females	Both sexes	Males	Females
Nauru	71.4	72.9	68.6	1.4	2.4	0.2
New Zealand	58.0	62.3	52.1	4.1	6.8	1.0
Niue	75.2	77.2	72.7	10.8	17.6	5.6
Palau	–	–	–	–	–	–
Papua New Guinea	69.3	70.6	66.4	0.1	0.2	<0.1
Philippines	51.9	53.9	47.9	4.5	7.2	1.1
Republic of Korea	69.4	72.5	64.4	2.9	5.0	0.6
Samoa	71.4	72.8	68.6	1.1	1.8	<0.1
Singapore	41.7	44.6	37.5	<0.1	<0.1	<0.1
Solomon Islands	70.0	71.3	67.1	0.2	0.4	<0.1
Tonga	63.0	64.3	60.1	<0.1	<0.1	<0.1
Tuvalu	68.8	70.0	65.8	<0.1	<0.1	<0.1
Vanuatu	71.1	72.4	68.2	0.7	1.2	<0.1
Viet Nam	66.0	68.2	61.9	7.3	11.4	2.5

"–" Data not available
CI = confidence intervals
(1) 2019, 15-19 years, in %

Table A2.2.1 Alcohol-attributable fractions (AAFs) for deaths and alcohol-attributable (AA) deaths

	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
Country name	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
AFRICAN REGION										
Algeria	1.1	1.2	0.9	2149	1300	849	5.8	6.9	4.6	-3.8
Angola	6.6	9.3	3.3	15 017	11 625	3391	88.7	150.3	34.9	-29.2
Benin	5.0	7.2	2.5	4694	3604	1090	68.2	113.0	29.6	-13.8
Botswana	6.6	9.8	2.8	1356	1088	268	79.1	146.0	28.0	-19.0
Burkina Faso	4.7	6.6	2.6	7209	5383	1825	70.9	119.2	33.2	-3.5
Burundi	4.7	6.8	2.2	3 78	2819	759	60.6	102.9	24.2	-30.2
Cabo Verde	8.8	13.2	3.2	250	209	41	55.6	104.3	16.9	0.6
Cameroon	7.0	10.2	3.2	13 763	10 837	2925	94.3	156.2	38.6	-28.7
Central African Republic	3.9	5.6	1.9	2 03	1720	483	78.3	133.3	31.6	-12.5
Chad	2.8	4.2	1.2	4132	3274	858	52.4	86.7	20.9	-9.8
Comoros	0.6	0.8	0.2	28	23	5	6.0	10.1	2.3	2.7
Congo	7.7	11.5	3.8	2686	2026	661	83.3	134.5	39.1	1.3
Côte d'Ivoire	3.2	4.5	1.3	6156	5059	1097	42.4	67.3	15.7	-9.1
Democratic Republic of the Congo	4.3	6.0	2.4	31 350	23 535	7815	59.6	96.0	26.4	-15.0
Equatorial Guinea	6.0	8.0	3.4	612	458	154	75.1	109.2	38.2	-7.7
Eritrea	2.7	3.7	1.4	743	565	178	35.3	55.7	16.7	-19.3
Eswatini	7.0	10.4	2.4	827	704	123	112.8	208.9	30.8	-33.3
Ethiopia	4.3	6.3	1.9	26 799	21 471	5328	43.8	73.2	17.2	29.7
Gabon	9.1	13.3	3.4	1307	1099	208	91.8	159.5	28.5	-21.5
Gambia	1.9	2.6	1.1	275	208	67	24.0	36.1	12.7	-49.6
Ghana	6.0	8.7	2.5	11 502	9515	1987	59.2	100.5	20.4	-28.0
Guinea	1.2	1.6	0.7	1260	855	405	18.7	29.3	11.1	2.8
Guinea-Bissau	4.8	7.3	2.0	778	630	149	73.2	133.5	26.0	-4.6
Kenya	5.0	7.3	2.2	14 643	11 651	2991	51.1	86.6	20.9	-22.6
Lesotho	5.2	8.1	1.9	1866	1555	311	111.3	203.4	34.9	8.7
Liberia	4.6	6.8	2.2	1679	1283	396	57.3	92.2	25.9	-7.5
Madagascar	2.4	3.3	1.4	4307	3087	1220	27.0	39.3	15.6	-13.4
Malawi	4.4	6.6	1.6	4730	3953	777	51.2	95.6	16.1	-30.8
Mali	2.1	3.2	1.1	3284	2480	804	34.8	55.6	16.6	-18.0

Table A2.2.1 *continued*

Country name	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Mauritania	0.4	0.6	0.2	106	82	24	4.5	7.5	2.0	3.4
Mauritius	3.9	6.5	0.7	441	406	35	27.2	52.5	4.3	-16.6
Mozambique	2.2	3.3	0.9	6181	4984	1198	37.8	69.4	14.1	13.9
Namibia	6.6	10.0	2.3	1199	1007	192	70.5	134.9	20.7	-10.3
Niger	0.8	1.1	0.4	1432	1063	368	13.6	20.2	7.3	-11.8
Nigeria	3.8	5.8	1.4	62 236	51 194	11 042	58.2	97.3	20.8	-0.6
Rwanda	4.7	6.9	2.2	3014	2365	648	41.6	69.8	17.7	19.4
Sao Tome and Principe	7.4	11.5	3.1	74	59	15	60.5	104.0	23.5	-12.1
Senegal	1.2	1.8	0.7	1068	782	285	12.5	19.9	6.6	-9.5
Seychelles	8.8	13.4	2.9	68	58	10	62.1	110.5	17.1	11.6
Sierra Leone	1.1	1.4	0.8	746	486	260	16.7	21.3	12.1	-9.0
South Africa	7.3	10.9	3.0	36 248	29 531	6717	67.9	118.7	24.2	-30.9
South Sudan	–	–	–	–	–	–	–	–	–	–
Togo	2.7	3.6	1.6	1511	1126	385	29.6	45.1	15.2	-29.0
Uganda	7.5	10.6	3.4	17 065	13 684	3382	86.6	156.0	32.8	-26.7
United Republic of Tanzania	6.9	10.2	3.2	22 255	17 492	4763	74.1	125.7	30.7	-38.1
Zambia	5.0	7.6	1.9	6051	5019	1033	69.4	126.1	23.4	-14.6
Zimbabwe	3.7	5.9	1.3	4301	3553	748	51.6	99.8	16.7	-20.8
REGION OF THE AMERICAS										
Antigua and Barbuda	3.7	6.2	1.1	24	21	3	22.1	41.2	5.4	1.0
Argentina	3.8	6.2	1.2	13 085	11 032	2052	26.2	48.4	7.7	3.0
Bahamas	5.9	8.9	1.9	157	135	22	37.8	69.3	10.0	2.1
Barbados	3.5	6.3	0.8	119	105	15	27.7	50.8	7.8	1.5
Belize	8.3	12.0	2.3	156	139	17	46.6	83.6	10.4	-2.3
Bolivia (Plurinational State of)	4.8	7.4	2.3	4147	3149	997	41.1	64.7	18.8	-9.5
Brazil	6.7	10.5	1.9	91 927	80 461	11 466	39.6	73.7	9.3	-10.9
Canada	4.7	7.3	2.1	13 145	10 339	2806	21.3	35.0	8.8	-1.1
Chile	4.9	8.0	1.4	5369	4636	733	23.3	42.3	6.5	-21.4
Colombia	4.2	6.4	1.5	10 072	8488	1584	18.9	33.6	5.5	-25.4
Costa Rica	3.9	5.9	1.3	926	792	134	16.3	28.6	4.5	-2.2

Table A2.2.1 *continued*

	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
Country name	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Cuba	4.3	6.9	1.3	4817	4182	634	27.4	49.8	6.6	22.0
Dominica	–	–	–	–	–	–	–	–	–	–
Dominican Republic	8.3	12.0	3.2	6028	5023	1004	58.9	101.1	18.8	27.7
Ecuador	5.3	7.9	2.3	4284	3427	857	25.8	42.5	10.0	-38.8
El Salvador	5.6	8.5	1.8	2286	1964	323	36.9	72.9	8.9	4.6
Grenada	4.6	7.7	1.0	47	42	5	37.6	69.2	7.6	0.6
Guatemala	6.1	9.1	2.2	5772	4865	907	43.2	77.2	13.7	-21.8
Guyana	6.0	8.9	2.0	480	411	68	64.4	112.2	18.2	-1.4
Haiti	4.3	6.8	2.0	4206	3191	1 015	47.6	76.3	21.9	-4.5
Honduras	5.2	7.6	2.9	2883	2097	786	40.4	61.5	21.3	-4.1
Jamaica	3.0	4.7	0.9	575	496	79	18.5	32.6	5.2	-7.1
Mexico	5.7	9.0	1.5	40 634	35 796	4838	32.7	61.2	7.3	-7.6
Nicaragua	4.9	7.8	1.4	1582	1375	207	29.7	56.5	7.3	-3.3
Panama	4.5	6.7	1.5	902	774	128	21.2	37.3	5.8	-13.6
Paraguay	5.5	8.5	1.1	1883	1729	153	30.6	56.4	4.9	7.1
Peru	7.5	11.2	3.4	10 613	8348	2265	32.0	51.7	13.2	-18.0
Saint Kitts and Nevis	–	–	–	–	–	–	–	–	–	–
Saint Lucia	7.0	9.8	2.7	105	89	16	49.0	84.9	14.9	15.8
Saint Vincent and the Grenadines	4.0	6.7	0.7	37	34	3	30.7	55.2	5.4	-0.1
Suriname	5.3	7.9	2.0	237	198	40	42.2	75.1	13.4	10.9
Trinidad and Tobago	4.0	6.2	0.9	379	344	35	24.1	45.0	4.5	-20.5
United States of America	5.1	7.8	2.3	149 867	117 188	32 680	32.1	52.4	13.5	9.9
Uruguay	3.2	5.7	0.7	1126	995	130	26.4	49.8	6.5	-4.5
Venezuela (Bolivarian Republic of)	4.4	6.5	1.3	7486	6547	940	26.8	48.9	6.3	-35.4
EASTERN MEDITERRANEAN REGION										
Afghanistan	0.3	0.4	0.2	776	481	295	4.9	5.9	4.0	-8.6
Bahrain	2.2	3.0	1.0	103	86	17	10.3	12.7	6.3	-25.1
Djibouti	1.4	2.0	0.8	105	80	26	14.7	21.3	7.7	-30.3
Egypt	2.1	2.2	1.9	11 889	7001	4889	17.8	22.2	13.8	-7.4

Table A2.2.1 *continued*

Country name	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Iran (Islamic Republic of)	0.6	0.9	0.3	2287	1870	417	3.1	4.9	1.3	-35.5
Iraq	1.0	1.1	0.8	1562	1000	562	7.3	9.0	5.7	-10.4
Jordan	0.9	1.1	0.7	262	167	95	4.4	5.3	3.4	-18.5
Kuwait	0.4	0.5	0.1	32	30	2	1.0	1.5	0.2	-26.2
Lebanon	1.5	1.7	1.2	569	372	197	8.7	11.6	5.8	-13.2
Libya	0.4	0.5	0.3	106	74	32	2.2	3.2	1.4	-9.6
Morocco	1.1	1.2	0.9	2623	1547	1 076	7.9	9.7	6.1	-5.2
Oman	1.6	1.8	1.3	264	182	82	10.1	9.5	9.7	-27.6
Pakistan	0.8	1.0	0.6	13 585	8957	4628	9.7	12.2	7.2	-7.5
Qatar	3.0	3.7	1.3	134	115	20	10.9	9.3	10.9	-26.7
Saudi Arabia	0.7	0.8	0.3	961	787	174	4.2	5.8	2.1	-18.5
Somalia	0.2	0.4	0.1	411	340	71	6.1	10.2	2.3	-5.7
Sudan	0.7	0.7	0.6	1605	898	706	7.5	8.4	6.6	-10.3
Syrian Arab Republic	0.5	0.6	0.4	449	261	188	4.1	4.9	3.4	-34.6
Tunisia	1.8	2.2	1.3	1215	816	399	9.7	14.0	5.8	-4.7
United Arab Emirates	2.5	2.9	1.0	522	473	49	8.6	10.0	4.7	-24.1
Yemen	0.3	0.3	0.2	426	300	127	3.2	4.7	1.8	-11.4
EUROPEAN REGION										
Albania	4.2	5.6	3.0	1308	824	484	28.0	38.5	18.2	2.0
Andorra	–	–	–	–	–	–	–	–	–	–
Armenia	5.8	8.3	3.1	1462	1079	383	37.0	67.3	14.9	-14.6
Austria	5.5	8.9	2.2	4668	3714	954	28.1	48.4	10.6	-14.9
Azerbaijan	5.5	7.0	3.9	4499	2976	1524	48.6	72.3	29.7	-5.5
Belarus	23.2	24.4	21.9	26 913	14 194	12 719	164.3	246.6	102.6	-35.3
Belgium	4.4	6.9	2.0	5017	3842	1175	25.0	40.6	11.0	-14.3
Bosnia and Herzegovina	3.7	5.9	1.4	1401	1131	269	24.7	44.4	8.0	0.9
Bulgaria	4.6	7.3	1.8	4916	4014	902	38.9	70.3	13.0	0.5
Croatia	5.1	9.0	1.5	2660	2260	400	34.5	65.6	9.7	-23.6
Cyprus	2.6	4.1	1.0	175	143	32	10.0	17.5	3.6	-28.9
Czechia	6.1	9.4	2.6	6918	5476	1442	38.3	65.6	15.0	-7.7
Denmark	4.7	7.4	1.9	2535	2017	517	24.5	40.6	10.0	-31.1

Table A2.2.1 *continued*

Country name	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Estonia	15.2	18.0	12.8	2312	1283	1028	83.9	131.6	47.5	-36.0
Finland	5.0	8.0	2.1	2770	2184	586	29.5	49.0	11.7	-27.1
France	5.1	8.3	2.1	30 773	24 583	6191	26.1	45.4	9.5	-22.7
Georgia	9.5	14.1	4.6	5078	3879	1199	83.8	156.6	29.3	-10.3
Germany	5.5	7.8	2.5	46 244	36 899	9345	28.2	47.5	11.0	-8.5
Greece	2.6	4.3	1.0	3310	2706	604	15.5	26.9	5.4	-15.9
Hungary	6.0	10.0	2.3	7656	6125	1532	45.8	84.8	15.7	-24.1
Iceland	3.6	5.8	1.4	85	68	17	17.3	29.0	6.1	18.6
Ireland	4.3	6.6	1.9	1338	1054	284	19.7	32.4	8.3	-22.1
Israel	1.8	2.8	0.8	810	629	181	7.5	12.9	2.9	-13.0
Italy	2.7	4.7	0.8	17 432	14 649	2783	12.9	23.3	4.4	-25.0
Kazakhstan	7.4	10.5	3.9	9375	6996	2380	51.0	90.9	22.0	-38.7
Kyrgyzstan	8.7	12.0	4.7	2585	1936	649	53.3	89.2	25.0	-39.5
Latvia	18.0	18.8	17.4	5372	2539	2834	127.0	187.0	78.5	-17.5
Lithuania	19.7	19.7	19.7	8269	3814	4455	128.0	186.3	80.3	-30.5
Luxembourg	5.6	8.6	2.7	239	181	58	25.0	39.5	11.8	-14.7
Malta	2.7	4.5	0.8	101	86	15	12.8	22.7	4.1	-9.5
Monaco	–	–	–	–	–	–	–	–	–	–
Montenegro	6.3	8.2	4.2	459	314	145	44.5	70.2	23.4	-10.0
Netherlands (Kingdom of the)	3.9	6.2	1.7	5956	4628	1327	18.6	30.4	8.1	-6.5
North Macedonia	2.4	3.8	1.0	606	491	115	19.3	33.7	6.8	-13.1
Norway	3.1	5.1	1.1	1260	1021	239	14.1	23.7	5.4	-21.7
Poland	7.1	11.3	2.7	28 495	23 276	5219	48.6	87.5	15.1	-0.2
Portugal	4.7	8.1	1.2	5257	4590	667	26.1	49.9	6.9	-21.5
Republic of Moldova	22.3	23.2	21.3	9151	4986	4165	162.3	217.0	116.6	-34.3
Romania	8.8	13.0	4.2	22 663	17 514	5150	69.4	119.7	27.4	-17.6
Russian Federation	18.1	20.8	15.4	323 143	184 001	139 142	143.6	216.5	85.8	-35.6
San Marino	–	–	–	–	–	–	–	–	–	–
Serbia	3.2	5.6	0.8	3703	3259	443	25.5	48.1	6.4	-22.9
Slovakia	7.7	12.3	2.8	3908	3218	690	46.0	85.2	14.6	-7.5

Table A2.2.1 *continued*

Country name	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Slovenia	7.9	13.4	2.7	1624	1338	286	41.0	73.7	12.3	-9.6
Spain	3.7	6.1	1.3	15 899	13 163	2735	17.1	30.4	5.7	-18.3
Sweden	3.3	5.3	1.3	3022	2420	602	16.9	27.9	6.8	-6.6
Switzerland	4.1	6.5	1.8	2799	2172	627	17.0	28.1	7.2	-17.8
Tajikistan	3.8	4.6	2.9	1919	1270	650	41.3	55.9	28.2	-4.6
Türkiye	1.8	2.5	1.1	7856	5523	2334	8.9	14.4	4.5	-10.8
Turkmenistan	6.1	8.0	3.6	2240	1648	592	49.5	78.4	25.5	-20.2
Ukraine	20.1	21.2	19.0	119 250	62 332	56 919	156.9	226.9	99.7	-24.5
United Kingdom of Great Britain and Northern Ireland	4.0	6.1	1.9	24 617	18 726	5891	21.9	34.5	10.7	-9.1
Uzbekistan	5.8	7.1	4.2	9796	6523	3273	40.9	57.5	26.6	-9.1
SOUTH-EAST ASIA REGION										
Bangladesh	0.7	0.9	0.4	5485	3948	1536	4.5	6.3	2.6	-16.4
Bhutan	1.7	2.2	1.1	78	58	20	11.9	16.0	7.0	-33.4
Democratic People's Republic of Korea	4.4	7.4	1.4	9889	8266	1624	32.3	58.6	9.9	-15.6
India	5.3	8.0	2.0	482 050	399 933	82 117	38.5	63.0	13.5	-8.0
Indonesia	1.3	1.3	1.2	22 834	12 880	9954	10.3	11.8	8.7	-10.1
Maldives	1.5	1.9	1.0	20	15	5	6.4	8.5	4.0	-24.2
Myanmar	3.7	5.5	1.5	14 246	11 586	2661	27.7	49.5	9.7	20.1
Nepal	2.7	3.9	1.4	4791	3655	1136	21.3	36.4	9.6	-4.9
Sri Lanka	2.1	3.3	0.7	3128	2676	452	12.9	24.0	3.4	-25.5
Thailand	7.7	11.7	2.6	38 073	32 314	5759	42.9	77.9	11.3	-2.7
Timor-Leste	1.4	1.7	0.9	103	71	32	12.0	15.7	8.1	-3.2
WESTERN PACIFIC REGION										
Australia	4.1	6.3	1.6	6711	5412	1299	18.2	30.1	7.2	-8.3
Brunei Darussalam	1.5	1.8	1.1	33	22	11	9.4	11.8	6.9	-9.2
Cambodia	10.4	14.3	5.9	10 042	7365	2677	81.3	134.8	40.1	14.9
China	2.9	4.5	0.7	295 783	266 482	29 301	16.1	29.6	3.3	-31.4
Cook Islands	–	–	–	–	–	–	–	–	–	–
Fiji	2.3	3.4	0.9	166	137	29	21.7	36.5	7.8	21.0

Table A2.2.1 *continued*

Country name	AAFs for deaths from all causes (1)			AA deaths from all causes (2)			AA deaths per 100,000 population (3)			Change in AA deaths per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Japan	3.8	5.7	1.8	51 446	39 515	11 931	17.0	29.0	6.5	-25.0
Kiribati	1.8	2.5	1.0	23	17	6	26.2	40.6	13.5	-3.4
Lao People's Democratic Republic	8.7	12.3	4.3	3809	2965	844	74.2	120.4	32.4	-22.1
Malaysia	1.7	2.2	1.1	3174	2336	838	10.8	15.3	6.1	-2.5
Marshall Islands	–	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	3.3	4.9	1.3	34	28	6	37.8	62.0	14.5	-5.8
Mongolia	14.0	17.5	8.6	3270	2480	790	122.9	196.2	60.0	-15.3
Nauru	–	–	–	–	–	–	–	–	–	–
New Zealand	3.7	5.8	1.6	1248	980	267	18.6	30.3	8.0	-6.8
Niue	–	–	–	–	–	–	–	–	–	–
Palau	–	–	–	–	–	–	–	–	–	–
Papua New Guinea	2.4	3.5	1.1	1470	1186	284	23.7	37.7	10.0	-5.8
Philippines	4.2	6.6	1.4	31 047	26 394	4653	36.0	66.9	10.5	-13.9
Republic of Korea	7.1	10.7	2.8	20 852	17 084	3768	25.5	44.9	9.0	-31.6
Samoa	3.3	4.9	1.6	40	30	9	26.4	39.5	12.9	-10.7
Singapore	2.3	3.0	1.4	612	452	160	7.6	11.5	3.7	-14.8
Solomon Islands	3.1	4.3	1.4	147	119	28	32.0	49.9	14.3	3.5
Tonga	2.5	3.3	1.4	15	12	4	18.4	29.1	8.5	1.0
Tuvalu	–	–	–	–	–	–	–	–	–	–
Vanuatu	3.5	4.7	1.6	74	61	14	35.3	55.3	15.1	2.9
Viet Nam	7.6	11.6	2.6	55 429	47 042	8387	54.4	102.2	14.8	6.5

"–" Data not available

(1) 2019, in %, all-ages

(2) 2019, number of deaths, all-ages

(3) 2019, from all causes, all-ages, age-standardized per 100,000 population

(4) % change between 2010 and 2019, from all causes, in %

Table A2.2.2 Alcohol-attributable fractions (AAFs) for disability-adjusted life years (DALYs) and alcohol-attributable (AA) DALYs

	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
Country	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
AFRICAN REGION										
Algeria	0.9	1.3	0.6	95 413	65 873	29 539	235.3	321.0	148.2	-1.1
Angola	4.8	6.8	2.6	801 750	597 011	204 739	3703.5	5987.0	1602.3	-27.6
Benin	3.5	5.0	1.8	226 105	171 652	54 452	2687.6	4325.8	1186.2	-12.5
Botswana	6.0	9.1	2.6	66 838	53 343	13 495	3455.0	6106.8	1267.0	-19.7
Burkina Faso	3.2	4.4	1.8	355 969	262 790	93 179	2700.9	4380.8	1273.2	-2.3
Burundi	3.6	5.2	1.8	194 472	150 707	43 764	2535.6	4204.6	1023.5	-27.4
Cabo Verde	8.3	12.5	2.9	11 115	9422	1693	2237.1	3980.8	666.0	-9.7
Cameroon	5.1	7.5	2.4	689 106	537 189	151 917	3807.8	6140.7	1593.0	-28.0
Central African Republic	3.2	4.6	1.6	115 484	88 682	26 802	3446.8	5653.6	1434.9	-10.8
Chad	1.9	2.8	0.9	207 445	161 564	45 880	2067.8	3388.5	811.0	-8.2
Comoros	0.7	0.9	0.3	2240	1719	521	362.6	563.4	166.9	2.4
Congo	6.0	8.9	3.1	134 683	100 033	34 650	3411.7	5287.4	1657.7	-2.2
Côte d’Ivoire	2.2	3.2	1.0	306 921	245 071	61 850	1711.5	2714.1	643.4	-8.8
Democratic Republic of the Congo	3.4	4.5	2.0	1 716 241	1 239 172	477 070	2621.7	4055.6	1258.6	-12.6
Equatorial Guinea	4.7	6.3	2.7	34 084	25 118	8966	3209.2	4383.1	1800.2	-7.9
Eritrea	2.5	3.5	1.2	35 996	28 518	7478	1499.7	2423.6	620.9	-17.8
Eswatini	6.4	9.6	2.2	41 193	35 097	6096	4923.6	8855.9	1324.6	-34.7
Ethiopia	3.4	5.3	1.3	1 401 033	1 152 945	248 088	1835.3	3111.2	633.2	19.8
Gabon	7.2	10.8	2.8	62 551	51 634	10 917	3704.3	6115.9	1250.7	-22.5
Gambia	1.4	2.0	0.8	13 814	10 377	3437	926.5	1429.2	454.6	-50.0
Ghana	4.7	6.9	1.9	553 689	450 289	103 400	2371.1	3921.4	856.4	-25.9
Guinea	0.9	1.2	0.5	64 344	44 090	20 253	754.2	1189.1	428.7	6.7
Guinea-Bissau	3.5	5.3	1.5	37 215	29 680	7536	2876.6	5065.3	1036.1	-5.6
Kenya	3.7	5.5	1.7	714 474	561 329	153 144	1981.6	3261.6	816.7	-22.8
Lesotho	5.0	7.6	1.8	91 653	76 599	15 054	5060.0	8822.6	1602.8	8.7
Liberia	3.1	4.5	1.6	79 089	59 834	19 255	2181.9	3446.3	990.6	-6.1
Madagascar	2.2	3.0	1.2	244 094	177 473	66 621	1227.1	1822.0	655.9	-10.6

Table A2.2.2 *continued*

	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
Country	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Malawi	3.4	5.3	1.3	244 139	202 378	41 761	2053.1	3703.5	627.7	-31.2
Mali	1.4	2.0	0.7	164 946	122 887	42 059	1348.6	2135.7	631.6	-16.5
Mauritania	0.3	0.5	0.2	6319	4306	2014	202.8	297.6	118.1	1.7
Mauritius	4.5	7.4	0.8	19 827	18 206	1621	1323.3	2452.4	237.9	-13.7
Mozambique	1.9	2.9	0.7	345 533	281 055	64 478	1720.5	3098.1	598.3	15.3
Namibia	5.9	9.1	2.1	61 624	51 613	10 011	3160.7	5808.3	935.3	-11.8
Niger	0.5	0.7	0.3	71 358	51 096	20 262	521.9	770.5	279.6	-10.0
Nigeria	2.3	3.5	0.9	2 912 629	2 352 053	560 576	2183.6	3606.0	787.2	-0.4
Rwanda	4.4	6.5	2.0	178 773	140 664	38 109	1938.1	3213.4	783.0	9.4
Sao Tome and Principe	5.9	8.9	2.5	3542	2818	724	2357.1	3923.7	912.9	-12.4
Senegal	0.9	1.3	0.5	54 655	39 487	15 169	500.9	795.7	259.5	-8.4
Seychelles	8.6	13.1	2.5	2664	2336	328	2472.3	4273.0	624.3	10.6
Sierra Leone	0.8	1.1	0.6	39 833	26 677	13 156	689.2	925.6	457.2	-5.5
South Africa	6.9	10.6	2.8	1 891 778	1 535 780	355 998	3301.7	5549.6	1210.0	-28.9
South Sudan	–	–	–	–	–	–	–	–	–	–
Togo	2.2	3.0	1.3	83 218	60 871	22 347	1329.8	2015.8	676.0	-26.6
Uganda	5.2	7.6	2.3	873 804	696 493	177 310	3300.0	5734.4	1221.5	-27.9
United Republic of Tanzania	4.9	7.3	2.3	1 117 639	873 347	244 292	2917.1	4786.7	1197.3	-38.7
Zambia	3.7	5.7	1.4	315 742	259 780	55 962	2849.2	4994.3	944.6	-15.3
Zimbabwe	3.2	5.1	1.1	223 693	186 489	37 204	2226.6	4205.0	670.9	-21.5
REGION OF THE AMERICAS										
Antigua and Barbuda	5.2	8.6	1.8	1338	1114	224	1270.3	2238.8	399.6	-0.6
Argentina	5.8	9.0	2.2	705 657	575 878	129 779	1543.4	2607.7	562.7	0.8
Bahamas	6.6	10.1	2.3	8223	6921	1302	1976.2	3468.3	606.9	0.5
Barbados	4.7	8.0	1.5	4685	3913	773	1334.2	2282.5	471.8	-2.4
Belize	8.5	13.0	2.5	8553	7505	1048	2328.1	4155.1	554.6	-1.8
Bolivia (Plurinational State of)	5.1	7.8	2.4	178 558	136 916	41 642	1730.1	2697.4	786.3	-10.9
Brazil	7.9	12.4	2.4	4 904 777	4 224 178	680 599	2156.5	3821.1	585.0	-10.3

Table A2.2.2 *continued*

	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
Country	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Canada	5.6	8.4	2.7	543 386	416 979	126 407	1153.7	1764.5	558.0	-0.9
Chile	7.0	10.9	2.8	311 366	250 552	60 814	1482.5	2410.9	596.3	-14.7
Colombia	5.5	8.6	1.9	634 432	532 272	102 160	1202.2	2072.9	378.1	-22.0
Costa Rica	5.0	7.8	1.7	56 661	47 996	8665	1043.4	1773.4	319.2	-0.2
Cuba	5.3	8.6	1.6	192 220	165 606	26 613	1297.1	2239.0	385.2	13.2
Dominica	–	–	–	–	–	–	–	–	–	–
Dominican Republic	8.3	12.4	3.1	277 131	231 393	45 738	2665.8	4516.2	864.1	22.2
Ecuador	5.8	8.9	2.4	222 203	178 751	43 452	1311.5	2132.4	507.4	-37.6
El Salvador	7.2	11.3	2.0	133 638	117 084	16 554	2149.5	4242.5	476.8	1.4
Grenada	5.6	9.2	1.4	2083	1838	245	1749.6	3070.3	425.6	3.9
Guatemala	6.6	10.2	2.1	342 747	294 225	48 522	2287.0	4118.5	645.1	-19.7
Guyana	6.6	9.7	2.4	23 211	19 653	3558	3054.1	5187.8	936.4	0.4
Haiti	4.2	6.4	2.0	217 417	165 505	51 912	2219.8	3533.3	1008.0	-5.4
Honduras	5.7	8.7	2.7	147 373	112 981	34 392	1808.1	2847.9	831.0	-7.5
Jamaica	3.7	5.7	1.5	29 049	23 391	5657	952.3	1561.9	372.2	-5.3
Mexico	6.1	9.9	1.6	2 029 592	1 784 966	244 627	1602.4	2955.0	371.7	-8.9
Nicaragua	5.7	9.4	1.6	88 189	76 731	11 458	1484.7	2753.8	363.5	-2.0
Panama	5.1	8.0	1.7	49 836	42 299	7537	1187.5	2030.7	356.6	-13.5
Paraguay	6.2	9.7	1.8	109 959	95 872	14 087	1679.2	2912.5	417.3	1.1
Peru	6.8	10.5	3.0	488 256	385 104	103 152	1477.9	2351.7	619.6	-16.4
Saint Kitts and Nevis	–	–	–	–	–	–	–	–	–	–
Saint Lucia	8.2	12.2	3.2	4810	3983	827	2355.7	3973.7	814.3	10.5
Saint Vincent and the Grenadines	5.4	8.7	1.4	2025	1793	232	1733.3	2996.5	422.5	3.0
Suriname	5.5	8.4	2.1	10 478	8710	1769	1815.7	3091.3	607.1	2.1
Trinidad and Tobago	4.9	7.8	1.3	20 768	18 301	2467	1401.0	2483.6	346.9	-17.2
United States of America	6.1	9.1	3.0	6 624 637	5 073 221	1 551 417	1735.9	2659.0	838.1	7.2
Uruguay	5.4	8.8	1.7	57 699	48 902	8797	1563.0	2715.6	480.2	-2.7
Venezuela (Bolivarian Republic of)	5.0	7.6	1.5	426 069	370 888	55 181	1525.9	2722.3	381.7	-33.1

Table A2.2.2 *continued*

Country	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
EASTERN MEDITERRANEAN REGION										
Afghanistan	0.3	0.4	0.2	45 366	30 304	15 062	195.1	249.4	138.5	-6.6
Bahrain	2.0	2.9	0.7	6176	5438	738	385.6	508.0	165.8	-21.1
Djibouti	1.4	2.0	0.7	5798	4453	1345	678.3	994.4	335.2	-26.9
Egypt	1.4	1.7	1.0	375 581	243 805	131 776	487.1	644.3	336.9	-10.4
Iran (Islamic Republic of)	0.6	0.8	0.3	115 821	89 971	25 850	138.2	212.3	63.0	-32.1
Iraq	0.8	1.1	0.5	82 414	58 155	24 258	287.1	394.9	180.3	-10.4
Jordan	0.8	1.1	0.5	15 114	10 490	4623	184.9	250.0	118.4	-16.6
Kuwait	0.6	0.7	0.3	3987	3260	727	85.6	110.9	43.3	-11.9
Lebanon	1.4	1.9	0.8	23 455	17 399	6056	346.1	512.7	179.0	-10.2
Libya	0.5	0.6	0.3	7565	5332	2233	120.3	170.0	72.0	-6.6
Morocco	1.0	1.3	0.6	102 969	69 257	33 712	288.7	397.7	184.2	-9.6
Oman	1.6	2.0	0.8	15 526	12 725	2801	358.3	396.4	251.9	-31.4
Pakistan	0.9	1.2	0.4	818 734	631 762	186 972	484.3	717.9	241.4	-3.7
Qatar	2.5	3.1	0.8	10 426	9548	878	380.5	407.4	227.1	-33.7
Saudi Arabia	0.7	0.9	0.4	59 333	48 004	11 329	181.3	241.5	91.5	-11.9
Somalia	0.3	0.4	0.1	30 912	23 931	6981	339.0	540.7	146.1	-3.3
Sudan	0.4	0.5	0.3	70 910	44 480	26 430	251.2	313.7	191.1	-13.3
Syrian Arab Republic	0.5	0.6	0.3	22 433	14 859	7574	157.9	210.6	107.0	-28.7
Tunisia	1.6	2.2	0.9	46 386	33 891	12 495	374.4	565.8	193.8	-4.1
United Arab Emirates	2.2	2.8	0.7	38 048	34 393	3655	380.9	462.7	159.5	-19.8
Yemen	0.2	0.3	0.2	29 457	20 184	9273	143.4	204.1	86.4	-8.8
EUROPEAN REGION										
Albania	4.5	6.0	2.8	35 843	25 410	10 432	974.7	1407.4	547.1	-20.5
Andorra	–	–	–	–	–	–	–	–	–	–
Armenia	6.2	9.3	2.8	53 586	41 993	11 592	1558.5	2772.4	591.7	-12.7
Austria	7.0	11.1	2.9	177 027	141 125	35 902	1470.1	2359.2	618.6	-15.4
Azerbaijan	5.4	7.4	3.0	166 944	124 445	42 499	1626.4	2559.2	794.6	-4.8
Belarus	21.2	25.2	16.4	754 180	487 639	266 541	5596.2	8647.4	3085.6	-37.4
Belgium	6.2	9.7	2.7	203 750	159 356	44 394	1391.7	2187.1	609.9	-16.6

Table A2.2.2 *continued*

Country	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Bosnia and Herzegovina	4.8	7.3	2.0	55 003	44 064	10 939	1224.3	1998.5	507.4	1.6
Bulgaria	6.3	9.3	2.7	182 389	146 684	35 705	1909.2	3104.8	799.4	0.7
Croatia	7.2	11.2	2.8	102 888	83 288	19 600	1768.9	2933.3	713.6	-20.1
Cyprus	4.0	6.4	1.6	9957	7990	1967	710.6	1135.7	296.2	-20.7
Czechia	8.6	12.5	4.2	294 408	226 746	67 662	2096.5	3221.0	1028.4	-9.4
Denmark	6.4	10.0	2.8	102 522	80 020	22 501	1330.4	2073.3	603.3	-24.2
Estonia	14.8	18.9	10.5	64 296	42 140	22 155	3306.5	4963.5	1890.5	-31.0
Finland	7.3	11.1	3.2	116 025	90 944	25 081	1660.6	2591.0	743.6	-26.8
France	6.7	10.4	2.9	1 156 696	902 877	253 820	1377.4	2206.1	606.9	-19.5
Georgia	10.6	15.7	4.4	165 883	135 170	30 713	3308.6	5966.2	1048.4	-10.0
Germany	6.4	9.8	2.7	1 643 279	1 312 181	331 098	1395.3	2216.8	595.4	-9.2
Greece	3.8	6.0	1.5	123 114	99 813	23 301	918.5	1483.4	370.3	-19.1
Hungary	8.0	12.2	3.6	291 898	228 261	63 637	2172.1	3574.3	963.2	-21.4
Iceland	5.7	9.1	2.3	4373	3512	861	1139.6	1822.7	451.9	9.9
Ireland	6.7	10.0	3.4	74 631	55 714	18 918	1364.9	2047.1	705.3	-15.3
Israel	2.5	3.8	1.1	40 048	30 601	9447	468.1	728.9	218.9	-9.1
Italy	3.7	6.2	1.3	644 846	532 720	112 125	787.3	1293.6	307.4	-15.8
Kazakhstan	8.0	11.6	3.8	420 065	329 839	90 226	2245.5	3865.2	893.4	-37.5
Kyrgyzstan	7.9	11.5	3.6	121 620	96 055	25 565	2211.6	3707.9	897.0	-37.6
Latvia	17.0	20.6	13.3	134 231	83 597	50 633	4682.0	7154.6	2540.0	-15.3
Lithuania	17.8	21.2	14.3	197 236	121 235	76 001	4646.8	7033.4	2566.5	-31.4
Luxembourg	7.5	11.3	3.6	10 781	8188	2593	1383.7	2070.9	691.5	-12.9
Malta	4.3	6.9	1.5	5049	4140	909	926.6	1469.3	380.2	-5.2
Monaco	–	–	–	–	–	–	–	–	–	–
Montenegro	6.9	9.4	4.0	14 675	10 722	3953	1779.1	2720.9	917.0	-9.4
Netherlands (Kingdom of the)	4.9	7.8	2.1	224 553	175 799	48 754	977.5	1537.7	427.9	-0.4
North Macedonia	3.6	5.2	1.7	25 523	19 615	5908	951.3	1464.3	467.9	-11.6
Norway	4.4	7.1	1.7	57 913	46 504	11 409	871.9	1368.2	368.9	-16.8
Poland	10.4	15.3	4.5	1 275 413	1 022 331	253 081	2628.6	4308.3	1049.9	-1.4

Table A2.2.2 *continued*

Country	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Portugal	6.3	10.8	1.7	194 965	169 320	25 645	1401.1	2531.5	394.5	-20.7
Republic of Moldova	19.1	22.2	15.3	279 057	177 139	101 918	5256.5	7515.2	3301.4	-33.6
Romania	11.0	15.5	5.5	806 880	622 975	183 905	3033.3	4856.8	1362.4	-15.9
Russian Federation	18.3	22.6	13.3	10 872 374	7 250 490	3 621 884	5772.4	8842.8	3160.7	-35.4
San Marino	–	–	–	–	–	–	–	–	–	–
Serbia	5.0	7.9	1.9	162 902	133 723	29 179	1414.7	2333.0	569.8	-19.2
Slovakia	10.0	14.9	4.3	166 201	133 042	33 159	2311.5	3814.3	949.3	-6.5
Slovenia	10.1	15.4	4.1	61 208	49 542	11 665	2047.7	3305.2	808.8	-11.5
Spain	4.8	7.9	1.7	598 393	490 246	108 147	950.2	1547.1	381.6	-16.3
Sweden	5.1	8.0	2.1	131 768	103 892	27 876	1062.5	1649.7	473.5	-9.3
Switzerland	5.8	9.1	2.6	122 959	94 746	28 213	1088.2	1672.9	517.1	-15.5
Tajikistan	3.3	4.4	2.1	89 905	64 729	25 175	1389.2	2003.3	805.5	-6.2
Türkiye	1.5	2.3	0.7	281 456	212 758	68 698	323.7	521.1	147.3	-9.4
Turkmenistan	5.4	7.5	2.7	104 891	81 278	23 614	2003.8	3252.8	887.4	-20.2
Ukraine	18.7	22.4	14.3	3 483 669	2 260 589	1 223 080	5667.9	8721.1	3038.6	-20.4
United Kingdom of Great Britain and Northern Ireland	5.8	8.9	2.7	1 096 842	844 769	252 073	1354.9	2092.7	639.4	-4.6
Uzbekistan	5.1	7.0	3.0	429 537	311 611	117 926	1485.8	2213.9	816.2	-8.6
SOUTH-EAST ASIA REGION										
Bangladesh	1.0	1.5	0.4	422 281	346 673	75 608	278.8	446.9	108.3	-5.8
Bhutan	2.7	4.0	1.1	5835	4751	1083	792.1	1182.3	333.2	-24.7
Democratic People's Republic of Korea	5.1	8.3	1.6	431 229	367 073	64156	1473.6	2572.4	437.7	-13.7
India	5.1	8.1	1.8	23 819 570	19 909 972	3 909 598	1799.2	2926.7	611.1	-11.7
Indonesia	1.1	1.3	0.8	881 762	578 223	303 539	346.0	451.4	239.6	-10.9
Maldives	1.7	2.5	0.6	1361	1164	197	266.4	362.6	119.6	-12.2
Myanmar	3.6	5.6	1.3	685 958	569 422	116 536	1268.4	2251.4	409.0	18.3
Nepal	2.7	4.5	1.1	240 491	193 796	46 695	959.6	1792.1	339.5	-6.9
Sri Lanka	2.7	4.4	0.7	153 977	135 386	18 590	684.3	1268.6	162.0	-27.0

Table A2.2.2 *continued*

	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
Country	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Thailand	8.1	12.6	2.3	1 628 081	1 424 854	203 226	2048.6	3702.7	484.9	-0.1
Timor-Leste	1.3	1.9	0.7	5774	4401	1373	562.5	837.3	281.6	-2.4
WESTERN PACIFIC REGION										
Australia	6.3	9.3	3.1	381 893	291 508	90 385	1317.1	2000.5	648.0	-4.9
Brunei Darussalam	1.9	2.6	1.1	1966	1434	532	456.2	634.2	264.3	4.5
Cambodia	8.7	12.5	4.5	434 588	329 290	105 298	3076.3	5080.2	1408.4	9.8
China	3.8	6.1	0.9	14 182 541	12 658 379	1 524 162	829.7	1451.1	195.6	-22.0
Cook Islands	–	–	–	–	–	–	–	–	–	–
Fiji	2.5	3.8	1.0	8164	6676	1488	964.3	1577.4	355.8	21.2
Japan	4.6	6.9	2.2	1 626 623	1 250 277	376 346	880.7	1353.4	419.9	-17.6
Kiribati	1.8	2.5	0.8	1138	895	243	1145.3	1868.1	489.2	-1.8
Lao People's Democratic Republic	7.3	10.6	3.4	175 962	138 518	37 444	2931.4	4699.1	1233.5	-21.3
Malaysia	1.8	2.5	0.8	141 388	112 407	28 981	442.5	680.1	192.2	1.1
Marshall Islands	–	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	3.4	5.1	1.3	1711	1442	270	1683.2	2802.7	555.7	-5.0
Mongolia	14.5	19.1	7.5	158 783	125 732	33 051	5236.3	8549.1	2192.5	-13.0
Nauru	–	–	–	–	–	–	–	–	–	–
New Zealand	7.2	10.5	3.8	86 785	63 853	22 932	1637.2	2431.4	883.7	3.4
Niue	–	–	–	–	–	–	–	–	–	–
Palau	–	–	–	–	–	–	–	–	–	–
Papua New Guinea	2.3	3.4	1.0	80 398	64 865	15 533	1100.0	1755.8	437.9	-4.7
Philippines	4.4	6.9	1.3	1 440 345	1 245 139	195 206	1490.4	2654.3	397.1	-15.8
Republic of Korea	8.8	13.1	3.8	999 984	801 813	198 171	1455.5	2301.2	631.8	-26.8
Samoa	3.5	5.2	1.6	1987	1564	423	1224.1	1866.5	536.0	-8.4
Singapore	3.0	4.2	1.4	34 730	27 247	7483	476.4	713.1	217.4	-1.8
Solomon Islands	3.2	4.8	1.3	7688	6336	1353	1472.9	2388.8	557.8	3.6
Tonga	2.7	3.9	1.3	741	574	167	829.1	1329.0	360.3	2.4
Tuvalu	–	–	–	–	–	–	–	–	–	–

Table A2.2.2 *continued*

	AAFs for DALYs lost from all causes (1)			AA DALYs lost from all causes (2)			AA DALYs lost per 100 000 population (3)			Change in AA DALYs lost per 100 000 population (4)
Country	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Vanuatu	3.5	5.1	1.4	3877	3209	668	1604.6	2634.2	583.1	3.0
Viet Nam	8.4	12.5	2.7	2 313 651	1 998 052	315 598	2270.4	4080.9	602.6	5.3

"–" Data not available

(1) 2019, in %, all-ages

(2) 2019, number of DALYs, all-age

(3) 2019, from all causes, all-ages, age-standardized per 100,000 population

(4) % change between 2010 and 2019, from all causes, in %

Table A2.3.1 Alcohol policy

Country	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
AFRICAN REGION											
Algeria	–	–	–	–	–	–	–	–	–	–	–
Angola	No	Yes	No	Yes	No	No	No	No	Yes (b)	Yes	Yes
Benin	No	No	No	No	No	No	No	No	No	No	Yes
Botswana	No	No	No	No	No	No	No	No	No	No	Yes
Burkina Faso	No	No	No	No	No	No	No	No	Yes	No	Yes
Burundi	No	No	No	No	No	No	No	No	No	No	Yes
Cabo Verde	No	Yes	No	Yes	No	Yes	No	Yes	No	No	Yes
Cameroon	–	–	–	–	–	–	–	–	–	–	–
Central African Republic	No	No	No	No	No	No	No	No	No	No	No
Chad	No	No	No	No	No	No	No	No	No	No	No
Comoros	–	–	–	–	–	–	–	–	–	–	–
Congo	No	No	No	No	No	No	No	No	Yes	No	Yes
Côte d’Ivoire	No	No	No	Yes	No	No	No	No	Yes	No	Yes
Democratic Republic of the Congo	No	No	No		No	No	No	No	Yes	No	Yes
Equatorial Guinea	–	–	–	–	–	–	–	–	–	–	–
Eritrea	–	–	–	–	–	–	–	–	–	–	–
Eswatini	No	No	Yes	Yes	Yes	No	No	No	No	No	No
Ethiopia	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes
Gabon	–	–	–	–	–	–	–	–	–	–	–
Gambia	–	–	–	–	–	–	–	–	–	–	–
Ghana	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Guinea	No	No	No	No	No	No	No	No	No	No	Yes
Guinea-Bissau	–	–	–	–	–	–	–	–	–	–	–
Kenya	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes
Lesotho	–	–	–	–	–	–	–	–	–	–	–

Table A2.3.1 *continued*

Country	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Liberia	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Madagascar	–	–	–	–	–	–	–	–	–	–	–
Malawi	–	–	–	–	–	–	–	–	–	–	–
Mali	No	No	No	No	No	No	No	No	No	No	No
Mauritania	–	–	–	–	–	–	–	–	–	–	–
Mauritius	–	–	–	–	–	–	–	–	–	–	–
Mozambique	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes
Namibia	–	–	–	–	–	–	–	–	–	–	–
Niger	–	–	–	–	–	–	–	–	–	–	–
Nigeria	No	No	No	Yes	Yes	Yes	No	No	Yes (b,w)	No	No
Rwanda	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sao Tome and Principe	–	–	–	–	–	–	–	–	–	–	–
Senegal	No	No	Yes	No	Yes	No	No	No	No	No	Yes
Seychelles	No	No	No	No	No	Yes	No	No	No	No	Yes
Sierra Leone	No	No	Yes	No	Yes	No	No	No	No	No	Yes
South Africa	No	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes
South Sudan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	Yes
Togo	–	–	–	–	–	–	–	–	–	–	–
Uganda	No	No	Yes	Yes	No	No	No	No	No	No	Yes
United Republic of Tanzania	No	No	No	No	No	No	No	No	No	No	Yes
Zambia	No	No	No	No	No	No	No	No	Yes	–	Yes
Zimbabwe	No	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes
REGION OF THE AMERICAS											
Antigua and Barbuda	No	No	No	No	No	No	No	No	No	No	No
Argentina	No	No	Yes	Yes	No	No	No	No	No	No	Yes
Bahamas	No	No	No	No	No	No	No	No	No	No	No

Table A2.3.1 *continued*

	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
Country	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Barbados	No	No	No	No	No	No	No	No	No	No	Yes
Belize	No	No	No	No	No	No	No	No	No	No	Yes
Bolivia (Plurinational State of)	No	No	No	Yes	No	No	No	No	–	–	–
Brazil	–	–	–	–	–	–	–	–	–	–	–
Canada	No	No	No	No	No	No	No	No	No	No	Yes
Chile	No	No	No	No	No	No	No	No	No	No	Yes
Colombia	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
Costa Rica	No	No	No	No	No	No	No	No	Yes	No	Yes
Cuba	No	No	No	No	No	No	No	No	–	–	–
Dominica	No	No	No	No	No	No	No	No	No	No	No
Dominican Republic	No	No	No	No	Yes	Yes	No	No	No	No	No
Ecuador	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No
El Salvador	–	–	–	–	–	–	–	–	–	–	–
Grenada	No	No	No	No	No	No	No	No	No	No	No
Guatemala	No	No	Yes	No	Yes	No	No	No	–	–	Yes
Guyana	No	No	No	No	No	No	No	No	No	No	No
Haiti	–	–	–	–	–	–	–	–	–	–	–
Honduras	No	No	No	No	No	No	No	No	No	No	No
Jamaica	No	No	No	No	No	No	No	No	No	No	No
Mexico	No	Yes	No	Yes	No	Yes	No	No	No	No	Yes
Nicaragua	No	No	No	No	No	No	No	No	No	No	No
Panama	No	No	No	No	No	No	No	No	No	No	No
Paraguay	No	No	Yes	Yes	No	No	No	No	No	No	Yes
Peru	Yes	No	Yes	No	Yes	No	Yes	No	No	No	No
Saint Kitts and Nevis	No	No	No	No	No	No	No	No	No	No	No
Saint Lucia	No	No	No	No	No	No	No	No	No	No	No

Table A2.3.1 *continued*

Country	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Saint Vincent and the Grenadines	No	No	No	No	No	No	No	No	No	No	Yes (w,s)
Suriname	No	No	No	No	No	No	No	No	No	No	No
Trinidad and Tobago	–	–	–	–	–	–	–	–	–	–	–
United States of America	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
Uruguay	No	No	No	No	No	No	No	No	No	No	Yes
Venezuela	–	–	–	–	–	–	–	–	–	–	–
EASTERN MEDITERRANEAN REGION											
Afghanistan	No	No	No	No	No	No	No	No	No	No	No
Bahrain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Djibouti	–	–	–	–	–	–	–	–	–	–	–
Egypt	–	–	–	–	–	–	–	–	–	–	–
Iran (Islamic Republic of)	–	–	–	–	–	–	–	–	–	–	–
Iraq	No	No	No	No	No	No	No	No	No	No	–
Jordan	No	No	No	No	No	No	No	No	Yes	No	Yes
Kuwait	–	–	–	–	–	–	–	–	–	–	–
Lebanon	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
Libya	–	–	–	–	–	–	–	–	–	–	–
Morocco	No	No	No	No	No	No	No	No	No	No	No
Oman	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Pakistan	No	No	No	No	No	No	No	No	No	No	No
Qatar	–	–	–	–	–	–	–	–	–	–	–
Saudi Arabia	No	No	No	No	No	No	No	No	No	–	–
Somalia	No	No	No	No	No	No	No	No	No	No	No
Sudan	–	–	–	–	–	–	–	–	No	No	No
Syrian Arab Republic	No	No	No	No	No	No	No	No	Yes	Yes	Yes

Table A2.3.1 *continued*

Country	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Tunisia	No	No	No	No	No	No	No	No	Yes	No	Yes
United Arab Emirates	No	No	No	No	No	No	No	No	No	No	No
Yemen	–	–	–	–	–	–	–	–	–	–	–
EUROPEAN REGION											
Albania	–	–	–	–	–	–	–	–	–	–	–
Andorra	No	No	No	No	No	No	No	No	No	No	Yes
Armenia	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
Austria	No	No	No	No	No	No	No	No	No	No	Yes
Azerbaijan	No	No	No	No	No	No	No	No	Yes	No	Yes
Belarus	Yes	No	Yes	No	No	No	No	No	Yes	No	Yes
Belgium	No	No	No	No	No	No	No	No	No	No	Yes
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–
Bulgaria	–	–	–	–	–	–	–	–	–	–	–
Croatia	No	No	No	No	No	No	No	No	No	No	Yes
Cyprus	No	No	No	No	No	No	No	No	No	No	Yes
Czechia	No	No	No	No	No	No	No	No	Yes	No	Yes
Denmark	No	No	No	No	No	No	No	No	No	Yes	Yes
Estonia	No	No	No	No	No	No	No	No	No	No	Yes
Finland	No	No	No	No	No	No	No	No	No	No	Yes
France	No	Yes	No	No	No	No	No	No	No	No	Yes
Georgia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Germany	No	No	No	Yes	No	No	No	No	No	No	Yes
Greece	No	No	No	No	No	No	No	No	Yes	No	Yes
Hungary	No	No	No	No	No	No	No	No	Yes	No	Yes
Iceland	No	No	No	No	No	No	No	No	No	No	No
Ireland	No	No	No	No	No	No	No	No	No	No	No
Israel	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes

Table A2.3.1 *continued*

	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
Country	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Italy	No	No	No	No	No	No	No	No	No	No	Yes
Kazakhstan	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes
Kyrgyzstan	No	No	No	No	No	No	No	No	No	No	No
Latvia	No	No	Yes	No	No	No	No	No	No	No	Yes
Lithuania	No	Yes	No	No	No	No	No	No	No	No	Yes
Luxembourg	No	No	No	No	No	No	No	No	No	No	Yes
Malta	No	No	No	No	No	No	No	No	No	No	Yes
Monaco	Yes	No	Yes	No	No	No	No	No	Yes	No	Yes
Netherlands (Kingdom of the)	No	No	No	No	No	No	No	No	No	No	Yes
North Macedonia	No	No	No	No	No	No	No	No	Yes	No	Yes
Norway	No	No	No	No	No	No	No	No	No	No	Yes
Poland	No	No	No	No	No	No	No	No	No	No	No
Portugal	No	No	Yes	No	No	No	No	No	No	No	Yes
Republic of Moldova	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes
Romania	No	No	Yes	No	No	No	No	No	Yes (b)	No	Yes
Russian Federation	Yes	No	Yes	No	No	No	No	No	Yes	Yes (w)	Yes
San Marino	No	No	No	No	No	No	No	No	No	No	No
Serbia	–	–	–	–	–	–	–	–	Yes	No	Yes
Slovakia	No	No	No	No	No	No	No	No	No	No	Yes
Slovenia	No	No	No	No	No	No	No	No	No	No	Yes
Spain	No	No	No	No	No		No	No	No	No	Yes
Sweden	Yes	No	Yes	No	Yes	No	Yes	No	No	No	Yes
Switzerland	No	No	No	No	No	No	No	No	No	No	Yes
Tajikistan									No	Yes	Yes
Türkiye	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes	Yes
Turkmenistan	No	No	No	No	No	No	No	No	Yes (b)	No	Yes

Table A2.3.1 *continued*

	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
Country	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Ukraine	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes
United Kingdom of Great Britain and Northern Ireland	No	No	No	No	No	No	No	No	No	No	Yes
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–
SOUTH-EAST ASIA REGION											
Bangladesh	No	No	No	No	No	No	No	No	No	No	Yes
Bhutan	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Democratic People's Republic of Korea	–	–	–	–	–	–	–	–	–	–	–
India	–	–	–	–	–	–	–	–	–	–	–
Indonesia	No	No	No	No	No	No	No	No	Yes (b)	No	Yes
Maldives	–	–	–	–	–	–	–	–	–	–	–
Myanmar	–	–	–	–	–	–	–	–	–	–	–
Nepal	No	No	No	No	No	No	No	No	No	Yes	Yes
Sri Lanka	No	No	No	No	No	No	No	No	No	Yes	Yes
Thailand	No	No	No	Yes	No	Yes	Yes	No	No	No	–
Timor-Leste	–	–	–	–	–	–	–	–	–	–	–
WESTERN PACIFIC REGION											
Australia	No	No	No	No	No	No	No	No	No	Yes	Yes
Brunei Darussalam	–	–	–	–	–	–	–	–	–	–	–
Cambodia	No	No	No	No	No	No	No	No	No	No	No
China	No	No	No	No	No	No	No	No	No	No	Yes
Cook Islands	No	No	No	No	No	No	No	No	No	No	Yes
Fiji	–	–	–	–	–	–	–	–	–	–	–
Japan	No	No	Yes	Yes	Yes	No	No	No	Yes	No	Yes
Kiribati	–	–	–	–	–	–	–	–	–	–	–

Table A2.3.1 *continued*

Country	Health warning labels regarding								Consumer information displayed on containers	Number of standard alcoholic drinks displayed on containers	Alcohol content displayed on containers
	Pregnancy (1)		Underage drinking (2)		Drink-driving (3)		Cancer (4)				
	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers	Advertisements	Containers			
Lao People's Democratic Republic	No	No	No	No	Yes	Yes	No	No	No	No	Yes
Malaysia	No	No	No	No	No	No	No	No	–	No	Yes
Marshall Islands	–	–	–	–	–	–	–	–	–	–	–
Micronesia (Federated States of)	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
Mongolia	No	No	Yes	Yes	No	No	No	No	No	No	Yes
Nauru	–	–	–	–	–	–	–	–	–	–	–
New Zealand	No	No	No	No	No	No	No	No	No	Yes	Yes
Niue	–	–	–	–	–	–	–	–	–	–	–
Palau	–	–	–	–	–	–	–	–	–	–	–
Papua New Guinea	No	No	No	No	Yes	No	No	No	No	No	No
Philippines	No	No	Yes	No	Yes	No	No	No	No	No	Yes
Republic of Korea	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	Yes
Samoa	–	–	–	–	–	–	–	–	–	–	–
Singapore	No	No	No	No	No	No	No	No	No	No	No
Solomon Islands	–	–	–	–	–	–	–	–	–	–	–
Tonga	No	No	No	No	No	No	No	No	No	No	No
Tuvalu	–	–	–	–	–	–	–	–	–	–	–
Vanuatu	No	No	No	No	No	No	No	No	No	No	Yes
Viet Nam	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes

"–" Data not available
b=beer, w= wine, s =spirits
(1) National legal requirement for health warning labels and/or messages regarding pregnancy
(2) National legal requirement for health warning labels and/or messages regarding underage drinking
(3) National legal requirement for health warning labels and/or messages regarding drink-driving
(4) National legal requirement for health warning labels and/or messages regarding cancer

ANNEX 3

Statistical annex on treatment of substance use disorders

Table A3.1 Capacity and contact coverage of treatment services for substance use disorders

● Direct
■ Imputation
▲ Missing data
○ Not included in estimation

	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
Country	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
Afghanistan	0.41	0.36	0.46	●	▲	▲
Albania	0.41	0.35	0.46	■	▲	▲
Algeria	0.38	0.32	0.44	■	▲	▲
Andorra	0.35	0.30	0.40	●	▲	▲
Angola	0.63	0.59	0.68	●	0.41	▲
Antigua and Barbuda	0.19	0.15	0.23	●	▲	▲
Argentina	0.44	0.39	0.49	■	▲	▲
Armenia	0.21	0.16	0.24	●	▲	▲
Australia	0.61	0.56	0.66	●	▲	▲
Austria	0.33	0.28	0.37	●	▲	▲
Azerbaijan	0.46	0.41	0.51	●	▲	▲
Bahamas	0.27	0.22	0.31	■	▲	▲
Bahrain	0.23	0.19	0.27	●	▲	▲
Bangladesh	0.48	0.43	0.53	●	▲	▲
Barbados	0.31	0.26	0.35	●	0.27	▲
Belarus	0.52	0.47	0.57	●	▲	10.04
Belgium	0.67	0.62	0.71	●	1.17	7.83
Belize	0.19	0.15	0.23	●	▲	▲
Benin	0.16	0.13	0.20	●	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	**Country**
0.16	0.10	0.23	●	0.53	0.45	0.60	●	Afghanistan
▲	▲	▲	○	▲	▲	▲	○	Albania
▲	▲	▲	○	▲	▲	▲	○	Algeria
0.43	0.34	0.52	●	0.35	0.28	0.43	●	Andorra
0.74	0.66	0.82	●	0.58	0.51	0.66	●	Angola
0.24	0.16	0.31	●	0.17	0.11	0.23	●	Antigua and Barbuda
0.45	0.36	0.54	●	▲	▲	▲	○	Argentina
0.22	0.15	0.30	●	0.23	0.16	0.29	●	Armenia
0.49	0.40	0.58	●	0.63	0.55	0.70	●	Australia
0.38	0.29	0.47	●	0.29	0.22	0.36	●	Austria
0.48	0.39	0.57	●	0.38	0.31	0.46	●	Azerbaijan
▲	▲	▲	○	▲	▲	▲	○	Bahamas
0.24	0.17	0.32	●	0.22	0.15	0.28	●	Bahrain
0.45	0.36	0.54	●	0.47	0.40	0.54	●	Bangladesh
0.32	0.23	0.40	●	0.24	0.18	0.31	●	Barbados
0.54	0.45	0.63	●	0.51	0.44	0.59	●	Belarus
0.74	0.67	0.82	●	0.67	0.61	0.75	●	Belgium
0.15	0.08	0.21	●	0.16	0.11	0.22	●	Belize
0.10	0.04	0.15	●	0.15	0.09	0.20	●	Benin

Table A3.1 *continued*

Country	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
Bhutan	0.36	0.31	0.41	●	▲	▲
Bolivia (Plurinational State of)	0.20	0.16	0.24	●	▲	▲
Bosnia and Herzegovina	0.38	0.33	0.42	■	▲	▲
Botswana	0.16	0.13	0.20	●	▲	▲
Brazil	0.28	0.24	0.33	●	▲	▲
Brunei Darussalam	0.25	0.20	0.30	■	▲	▲
Bulgaria	0.41	0.36	0.47	■	▲	▲
Burkina Faso	0.12	0.09	0.15	●	▲	▲
Burundi	0.07	0.04	0.09	●	▲	▲
Cabo Verde	0.33	0.28	0.38	●	▲	▲
Cambodia	0.29	0.25	0.34	●	▲	▲
Cameroon	0.20	0.15	0.24	■	▲	▲
Canada	0.55	0.50	0.60	●	▲	▲
Central African Republic	0.19	0.15	0.23	●	▲	▲
Chad	0.11	0.08	0.13	●	▲	▲
Chile	0.41	0.36	0.46	●	▲	▲
China	0.23	0.18	0.27	●	▲	▲
Colombia	0.50	0.45	0.55	●	▲	▲
Comoros	0.28	0.24	0.31	■	▲	▲
Congo	0.17	0.13	0.20	●	▲	▲
Cook Islands	0.09	0.06	0.12	●	▲	▲
Costa Rica	0.40	0.35	0.45	●	▲	▲
Côte d'Ivoire	0.29	0.25	0.33	●	▲	▲
Croatia	0.55	0.50	0.60	●	▲	23.50
Cuba	0.56	0.51	0.61	●	▲	▲
Cyprus	0.56	0.51	0.61	●	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Country
0.43	0.34	0.51	●	0.32	0.25	0.39	●	Bhutan
0.19	0.12	0.25	●	0.19	0.13	0.25	●	Bolivia (Plurinational State of)
▲	▲	▲	○	▲	▲	▲	○	Bosnia and Herzegovina
0.14	0.07	0.20	●	0.12	0.07	0.16	●	Botswana
▲	▲	▲	○	0.23	0.17	0.29	●	Brazil
▲	▲	▲	○	▲	▲	▲	○	Brunei Darussalam
▲	▲	▲	○	▲	▲	▲	○	Bulgaria
0.18	0.11	0.25	●	0.11	0.06	0.15	●	Burkina Faso
0.05	0.01	0.08	●	0.07	0.03	0.10	●	Burundi
0.47	0.38	0.56	●	0.29	0.22	0.35	●	Cabo Verde
0.20	0.13	0.27	●	0.35	0.28	0.42	●	Cambodia
▲	▲	▲	○	▲	▲	▲	○	Cameroon
0.53	0.44	0.62	●	0.61	0.53	0.68	●	Canada
0.14	0.07	0.20	●	0.18	0.12	0.23	●	Central African Republic
0.09	0.03	0.13	●	0.09	0.05	0.13	●	Chad
0.47	0.38	0.55	●	0.37	0.29	0.44	●	Chile
0.22	0.14	0.30	●	0.30	0.23	0.36	●	China
0.49	0.40	0.58	●	0.54	0.47	0.62	●	Colombia
▲	▲	▲	○	▲	▲	▲	○	Comoros
0.18	0.11	0.25	●	0.18	0.12	0.23	●	Congo
0.08	0.03	0.13	●	0.09	0.04	0.13	●	Cook Islands
0.45	0.36	0.53	●	0.37	0.30	0.44	●	Costa Rica
0.46	0.37	0.55	●	0.65	0.58	0.73	●	Côte d'Ivoire
0.65	0.57	0.74	●	0.45	0.37	0.52	●	Croatia
0.61	0.53	0.70	●	0.56	0.49	0.63	●	Cuba
0.82	0.75	0.89	●	0.77	0.71	0.84	●	Cyprus

Table A3.1 *continued*

	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
Country	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
Czechia	0.80	0.76	0.84	●	4.02	14.78
Democratic People's Republic of Korea	0.35	0.30	0.40	■	▲	▲
Democratic Republic of the Congo	0.07	0.05	0.09	●	▲	▲
Denmark	0.50	0.45	0.55	●	▲	▲
Djibouti	0.21	0.16	0.26	■	▲	▲
Dominica	0.02	0.01	0.04	●	▲	▲
Dominican Republic	0.34	0.30	0.39	●	▲	▲
Ecuador	0.49	0.44	0.54	●	▲	▲
Egypt	0.47	0.42	0.52	●	▲	▲
El Salvador	0.14	0.10	0.17	●	▲	▲
Equatorial Guinea	0.19	0.11	0.26	■	▲	▲
Eritrea	0.20	0.15	0.25	■	▲	▲
Estonia	0.38	0.33	0.43	●	▲	▲
Eswatini	0.23	0.19	0.28	●	▲	▲
Ethiopia	0.30	0.26	0.35	●	▲	▲
Fiji	0.22	0.17	0.26	■	▲	▲
Finland	0.70	0.65	0.74	●	▲	▲
France	0.67	0.62	0.72	●	▲	▲
Gabon	0.19	0.12	0.26	■	▲	▲
Gambia	0.21	0.17	0.26	■	▲	▲
Georgia	0.15	0.12	0.19	●	▲	▲
Germany	0.58	0.53	0.63	●	▲	▲
Ghana	0.42	0.37	0.47	●	▲	▲
Greece	0.61	0.57	0.66	●	▲	▲
Grenada	0.32	0.27	0.37	●	3.46	19.10
Guatemala	0.17	0.13	0.20	●	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Country
0.32	0.23	0.40	●	0.30	0.23	0.37	●	Czechia
▲	▲	▲	○	▲	▲	▲	○	Democratic People's Republic of Korea
0.07	0.03	0.11	●	0.08	0.04	0.11	●	Democratic Republic of the Congo
0.55	0.46	0.64	●	0.60	0.53	0.68	●	Denmark
▲	▲	▲	○	▲	▲	▲	○	Djibouti
0.03	-0.01	0.05	●	0.01	-0.01	0.02	●	Dominica
0.37	0.28	0.46	●	0.34	0.27	0.41	●	Dominican Republic
0.44	0.35	0.53	●	0.50	0.43	0.58	●	Ecuador
0.44	0.35	0.53	●	0.51	0.44	0.59	●	Egypt
0.16	0.10	0.23	●	0.17	0.11	0.22	●	El Salvador
▲	▲	▲	○	▲	▲	▲	○	Equatorial Guinea
▲	▲	▲	○	▲	▲	▲	○	Eritrea
0.41	0.32	0.49	●	0.35	0.28	0.42	●	Estonia
0.24	0.17	0.32	●	0.19	0.13	0.25	●	Eswatini
0.32	0.24	0.40	●	0.30	0.23	0.37	●	Ethiopia
▲	▲	▲	○	▲	▲	▲	○	Fiji
0.78	0.71	0.86	●	0.69	0.62	0.76	●	Finland
0.75	0.67	0.83	●	0.75	0.68	0.81	●	France
▲	▲	▲	○	▲	▲	▲	○	Gabon
▲	▲	▲	○	▲	▲	▲	○	Gambia
0.15	0.09	0.21	●	0.20	0.14	0.26	●	Georgia
0.65	0.56	0.74	●	0.63	0.56	0.71	●	Germany
0.33	0.25	0.41	●	0.39	0.31	0.46	●	Ghana
0.47	0.38	0.56	●	0.67	0.60	0.74	●	Greece
0.36	0.27	0.45	●	0.29	0.22	0.36	●	Grenada
0.20	0.13	0.27	●	0.15	0.09	0.20	●	Guatemala

Table A3.1 *continued*

	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
Country	**Point estimate**	**95% CI (lower)**	**95% CI (upper)**	**Estimate**	**%**	**%**
Guinea	0.24	0.19	0.29	🟥	▲	▲
Guinea-Bissau	0.18	0.13	0.23	🟥	▲	▲
Guyana	0.22	0.18	0.26	🟢	▲	▲
Haiti	0.17	0.14	0.21	🟥	▲	▲
Honduras	0.13	0.09	0.16	🟢	▲	▲
Hungary	0.40	0.35	0.45	🟢	▲	▲
Iceland	0.49	0.44	0.54	🟢	4.19	35.04
India	0.36	0.31	0.41	🟢	▲	▲
Indonesia	0.26	0.22	0.31	🟢	▲	▲
Iran (Islamic Republic of)	0.53	0.48	0.58	🟢	▲	▲
Iraq	0.34	0.29	0.38	🟢	▲	▲
Ireland	0.48	0.44	0.53	🟢	▲	▲
Israel	0.46	0.41	0.51	🟢	▲	▲
Italy	0.62	0.58	0.67	🟢	9.98	26.61
Jamaica	0.20	0.16	0.24	🟢	▲	▲
Japan	0.49	0.44	0.54	🟢	▲	▲
Jordan	0.32	0.27	0.37	🟢	▲	▲
Kazakhstan	0.48	0.43	0.53	🟢	▲	▲
Kenya	0.51	0.46	0.56	🟢	▲	▲
Kiribati	0.24	0.17	0.31	🟥	▲	▲
Kuwait	0.48	0.42	0.54	🟥	▲	▲
Kyrgyzstan	0.34	0.29	0.38	🟢	▲	▲
Lao People's Democratic Republic	0.34	0.29	0.39	🟥	▲	▲
Latvia	0.57	0.53	0.62	🟢	▲	2.10
Lebanon	0.41	0.36	0.46	🟥	▲	▲
Lesotho	0.18	0.12	0.23	🟥	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	**Country**
▲	▲	▲	○	▲	▲	▲	○	Guinea
▲	▲	▲	○	▲	▲	▲	○	Guinea-Bissau
0.22	0.15	0.29	●	0.16	0.11	0.22	●	Guyana
▲	▲	▲	○	▲	▲	▲	○	Haiti
0.12	0.06	0.17	●	0.09	0.05	0.13	●	Honduras
0.46	0.36	0.54	●	0.44	0.37	0.51	●	Hungary
0.50	0.41	0.59	●	0.49	0.42	0.57	●	Iceland
▲	▲	▲	○	0.34	0.27	0.41	●	India
0.08	0.03	0.13	●	0.35	0.28	0.42	●	Indonesia
0.49	0.40	0.58	●	0.53	0.46	0.61	●	Iran (Islamic Republic of)
0.34	0.25	0.42	●	0.30	0.23	0.37	●	Iraq
0.51	0.42	0.60	●	0.52	0.44	0.59	●	Ireland
0.34	0.26	0.43	●	0.45	0.37	0.52	●	Israel
0.64	0.55	0.73	●	0.71	0.65	0.78	●	Italy
0.23	0.16	0.30	●	0.16	0.10	0.21	●	Jamaica
0.59	0.50	0.68	●	0.41	0.34	0.49	●	Japan
0.41	0.32	0.50	●	0.32	0.25	0.39	●	Jordan
0.51	0.42	0.60	●	0.39	0.32	0.46	●	Kazakhstan
0.55	0.46	0.64	●	0.54	0.46	0.61	●	Kenya
▲	▲	▲	○	▲	▲	▲	○	Kiribati
▲	▲	▲	○	▲	▲	▲	○	Kuwait
0.22	0.14	0.29	●	0.33	0.26	0.40	●	Kyrgyzstan
▲	▲	▲	○	0.08	0.04	0.12	●	Lao People's Democratic Republic
0.56	0.47	0.65	●	0.65	0.58	0.72	●	Latvia
▲	▲	▲	○	▲	▲	▲	○	Lebanon
▲	▲	▲	○	▲	▲	▲	○	Lesotho

Table A3.1 *continued*

	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
Country	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
Liberia	0.31	0.26	0.35	●	▲	▲
Libya	0.27	0.23	0.31	■	▲	▲
Lithuania	0.29	0.25	0.34	●	▲	▲
Luxembourg	0.24	0.20	0.29	●	▲	▲
Madagascar	0.31	0.26	0.37	■	▲	▲
Malawi	0.25	0.21	0.29	■	▲	▲
Malaysia	0.55	0.51	0.60	●	▲	▲
Maldives	0.42	0.37	0.47	■	▲	▲
Mali	0.07	0.05	0.10	●	▲	▲
Malta	0.54	0.49	0.59	●	▲	▲
Marshall Islands	0.24	0.18	0.30	■	▲	▲
Mauritania	0.17	0.13	0.21	■	▲	▲
Mauritius	0.31	0.27	0.35	■	▲	▲
Mexico	0.31	0.26	0.35	●	▲	▲
Micronesia (Federated States of)	0.26	0.22	0.31	●	▲	▲
Monaco	0.51	0.46	0.56	●	▲	▲
Mongolia	0.54	0.49	0.59	●	3.18	0.32
Montenegro	0.40	0.33	0.46	■	▲	▲
Morocco	0.47	0.42	0.52	●	7.08	▲
Mozambique	0.22	0.18	0.26	●	▲	▲
Myanmar	0.30	0.26	0.35	●	▲	▲
Namibia	0.21	0.18	0.25	■	▲	▲
Nauru	0.25	0.19	0.30	■	▲	▲
Nepal	0.21	0.17	0.25	●	▲	▲
Netherlands (Kingdom of the)	0.70	0.66	0.75	●	13.82	20.04

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Country
0.28	0.20	0.35	●	0.23	0.17	0.29	●	Liberia
▲	▲	▲	○	▲	▲	▲	○	Libya
0.29	0.21	0.37	●	0.20	0.14	0.26	●	Lithuania
0.32	0.23	0.40	●	0.27	0.20	0.33	●	Luxembourg
▲	▲	▲	○	▲	▲	▲	○	Madagascar
▲	▲	▲	○	▲	▲	▲	○	Malawi
0.45	0.36	0.54	●	0.61	0.54	0.68	●	Malaysia
▲	▲	▲	○	▲	▲	▲	○	Maldives
0.01	-0.01	0.03	●	0.08	0.04	0.12	●	Mali
0.62	0.53	0.70	●	0.55	0.47	0.62	●	Malta
▲	▲	▲	○	▲	▲	▲	○	Marshall Islands
▲	▲	▲	○	▲	▲	▲	○	Mauritania
▲	▲	▲	○	▲	▲	▲	○	Mauritius
0.27	0.19	0.35	●	0.28	0.21	0.34	●	Mexico
0.28	0.20	0.36	●	0.23	0.17	0.29	●	Micronesia (Federated States of)
0.52	0.43	0.62	●	0.53	0.45	0.61	●	Monaco
0.65	0.57	0.74	●	▲	▲	▲	○	Mongolia
▲	▲	▲	○	▲	▲	▲	○	Montenegro
0.49	0.40	0.58	●	0.43	0.36	0.51	●	Morocco
0.19	0.12	0.25	●	0.12	0.08	0.17	●	Mozambique
0.22	0.15	0.30	●	0.23	0.17	0.30	●	Myanmar
▲	▲	▲	○	▲	▲	▲	○	Namibia
▲	▲	▲	○	▲	▲	▲	○	Nauru
0.20	0.13	0.27	●	0.18	0.12	0.24	●	Nepal
0.77	0.69	0.84	●	0.65	0.58	0.73	●	Netherlands (Kingdom of the)

Table A3.1 *continued*

Country	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
New Zealand	0.44	0.39	0.49	●	▲	▲
Nicaragua	0.58	0.53	0.63	●	0.57	7.37
Niger	0.23	0.18	0.28	■	▲	▲
Nigeria	0.08	0.06	0.11	●	▲	▲
Niue	0.27	0.22	0.31	■	▲	▲
North Macedonia	0.44	0.39	0.49	●	▲	▲
Norway	0.48	0.43	0.53	●	▲	▲
Oman	0.46	0.41	0.50	●	▲	▲
Pakistan	0.07	0.04	0.09	●	▲	▲
Palau	0.32	0.27	0.37	■	▲	▲
Panama	0.16	0.12	0.19	●	▲	▲
Papua New Guinea	0.19	0.15	0.23	●	▲	▲
Paraguay	0.24	0.20	0.28	●	▲	▲
Peru	0.32	0.27	0.36	●	▲	▲
Philippines	0.28	0.24	0.33	●	▲	▲
Poland	0.15	0.11	0.19	●	▲	▲
Portugal	0.79	0.75	0.83	●	▲	▲
Qatar	0.25	0.20	0.29	●	▲	▲
Republic of Korea	0.27	0.22	0.31	●	▲	▲
Republic of Moldova	0.68	0.63	0.72	●	2.96	2.23
Romania	0.23	0.19	0.27	●	▲	▲
Russian Federation	0.41	0.36	0.46	●	▲	▲
Rwanda	0.54	0.48	0.59	●	▲	▲
Saint Kitts and Nevis	0.20	0.16	0.24	●	▲	▲
Saint Lucia	0.19	0.15	0.23	●	▲	▲
Saint Vincent and the Grenadines	0.03	0.02	0.05	●	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	**Country**
0.50	0.41	0.59	●	0.38	0.31	0.46	●	New Zealand
0.61	0.53	0.70	●	0.51	0.43	0.58	●	Nicaragua
▲	▲	▲	○	▲	▲	▲	○	Niger
0.02	0.00	0.03	●	0.12	0.07	0.16	●	Nigeria
▲	▲	▲	○	▲	▲	▲	○	Niue
0.47	0.38	0.55	●	0.43	0.36	0.51	●	North Macedonia
0.42	0.33	0.51	●	0.54	0.47	0.62	●	Norway
0.47	0.39	0.56	●	0.43	0.36	0.51	●	Oman
0.04	0.01	0.06	●	0.10	0.06	0.15	●	Pakistan
▲	▲	▲	○	▲	▲	▲	○	Palau
0.16	0.10	0.23	●	0.17	0.11	0.23	●	Panama
0.14	0.08	0.20	●	0.13	0.08	0.18	●	Papua New Guinea
0.21	0.13	0.28	●	0.17	0.11	0.22	●	Paraguay
0.35	0.27	0.44	●	0.25	0.18	0.31	●	Peru
▲	▲	▲	○	0.37	0.30	0.45	●	Philippines
0.15	0.08	0.21	●	0.15	0.10	0.20	●	Poland
0.86	0.80	0.93	●	0.82	0.77	0.88	●	Portugal
0.28	0.20	0.35	●	0.24	0.17	0.30	●	Qatar
0.40	0.31	0.49	●	0.14	0.08	0.19	●	Republic of Korea
0.66	0.58	0.75	●	0.61	0.54	0.68	●	Republic of Moldova
0.22	0.14	0.29	●	0.26	0.19	0.32	●	Romania
0.49	0.40	0.58	●	0.37	0.29	0.44	●	Russian Federation
0.64	0.56	0.73	●	0.60	0.52	0.67	●	Rwanda
0.19	0.11	0.25	●	0.18	0.12	0.24	●	Saint Kitts and Nevis
0.17	0.10	0.24	●	0.18	0.12	0.23	●	Saint Lucia
0.03	0.00	0.06	●	0.04	0.01	0.07	●	Saint Vincent and the Grenadines

Table A3.1 *continued*

Country	Service Capacity Index for Substance Use Disorders (SCI-SUD) Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Treatment contact coverage AUD %	Treatment contact coverage DUD %
Samoa	0.25	0.20	0.30	■	▲	▲
San Marino	0.26	0.22	0.31	●	▲	▲
Sao Tome and Principe	0.22	0.18	0.25	■	▲	▲
Saudi Arabia	0.34	0.29	0.38	●	3.18	19.82
Senegal	0.25	0.21	0.29	●	▲	▲
Serbia	0.21	0.17	0.25	●	▲	▲
Seychelles	0.43	0.38	0.48	●	▲	▲
Sierra Leone	0.05	0.03	0.08	●	▲	▲
Singapore	0.31	0.26	0.35	●	▲	▲
Slovakia	0.48	0.43	0.53	●	5.29	8.41
Slovenia	0.55	0.50	0.60	●	▲	▲
Solomon Islands	0.15	0.10	0.19	■	▲	▲
Somalia	0.01	0.00	0.02	●	▲	▲
South Africa	0.54	0.49	0.59	●	▲	▲
South Sudan	0.09	0.06	0.12	●	▲	▲
Spain	0.77	0.72	0.81	●	▲	▲
Sri Lanka	0.53	0.48	0.58	●	▲	▲
Sudan	0.17	0.13	0.21	●	▲	▲
Suriname	0.28	0.23	0.32	●	▲	▲
Sweden	0.75	0.70	0.79	●	▲	35.43
Switzerland	0.58	0.53	0.63	●	▲	▲
Syrian Arab Republic	0.35	0.30	0.40	●	▲	▲
Tajikistan	0.73	0.69	0.77	●	1.27	3.43
Thailand	0.57	0.52	0.62	●	▲	▲
Timor-Leste	0.28	0.24	0.32	■	▲	▲
Togo	0.24	0.19	0.28	■	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Country
▲	▲	▲	○	▲	▲	▲	○	Samoa
0.35	0.26	0.43	●	0.25	0.18	0.31	●	San Marino
▲	▲	▲	○	▲	▲	▲	○	Sao Tome and Principe
0.47	0.38	0.56	●	0.34	0.27	0.41	●	Saudi Arabia
0.24	0.17	0.32	●	0.22	0.16	0.28	●	Senegal
0.25	0.17	0.33	●	0.21	0.14	0.27	●	Serbia
0.41	0.32	0.50	●	0.48	0.40	0.55	●	Seychelles
0.04	0.00	0.07	●	0.07	0.03	0.10	●	Sierra Leone
0.29	0.21	0.37	●	0.27	0.20	0.34	●	Singapore
0.51	0.41	0.60	●	0.45	0.37	0.52	●	Slovakia
0.54	0.45	0.63	●	0.55	0.48	0.63	●	Slovenia
▲	▲	▲	○	▲	▲	▲	○	Solomon Islands
0.01	-0.01	0.03	●	0.01	-0.01	0.02	●	Somalia
0.57	0.48	0.66	●	0.50	0.42	0.57	●	South Africa
0.07	0.03	0.11	●	0.05	0.02	0.08	●	South Sudan
0.82	0.75	0.90	●	0.82	0.76	0.88	●	Spain
0.48	0.39	0.57	●	0.51	0.44	0.59	●	Sri Lanka
0.21	0.13	0.27	●	0.14	0.09	0.19	●	Sudan
0.33	0.25	0.41	●	0.26	0.19	0.33	●	Suriname
0.80	0.73	0.88	●	0.81	0.76	0.87	●	Sweden
0.67	0.59	0.75	●	0.59	0.52	0.67	●	Switzerland
0.36	0.27	0.44	●	0.29	0.22	0.35	●	Syrian Arab Republic
0.76	0.68	0.83	●	0.74	0.67	0.81	●	Tajikistan
0.67	0.58	0.75	●	0.54	0.46	0.62	●	Thailand
▲	▲	▲	○	▲	▲	▲	○	Timor-Leste
▲	▲	▲	○	▲	▲	▲	○	Togo

Table A3.1 *continued*

Country	Service Capacity Index for Substance Use Disorders (SCI-SUD)				Treatment contact coverage AUD	Treatment contact coverage DUD
	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	%	%
Tonga	0.32	0.27	0.36	●	▲	▲
Trinidad and Tobago	0.33	0.28	0.38	■	▲	▲
Tunisia	0.14	0.11	0.18	●	▲	▲
Türkiye	0.61	0.56	0.66	●	1.41	▲
Turkmenistan	0.36	0.32	0.41	●	▲	▲
Tuvalu	0.29	0.23	0.34	■	▲	▲
Uganda	0.16	0.12	0.20	●	▲	▲
Ukraine	0.53	0.48	0.58	●	10.61	8.04
United Arab Emirates	0.44	0.37	0.50	■	▲	▲
United Kingdom of Great Britain and Northern Ireland	0.62	0.58	0.67	●	▲	▲
United Republic of Tanzania	0.46	0.41	0.51	●	▲	▲
United States of America	0.54	0.48	0.61	■	▲	▲
Uruguay	0.23	0.18	0.27	●	▲	▲
Uzbekistan	0.43	0.36	0.50	■	▲	▲
Vanuatu	0.06	0.04	0.09	●	▲	▲
Venezuela (Bolivarian Republic of)	0.28	0.22	0.33	■	▲	▲
Viet Nam	0.26	0.22	0.31	●	▲	▲
Yemen	0.17	0.13	0.21	■	▲	▲
Zambia	0.21	0.17	0.25	●	▲	▲
Zimbabwe	0.41	0.37	0.46	●	▲	▲

Service Capacity Index for Alcohol Use Disorders (SCI-AUD)				Service Capacity Index for Drug Use Disorders (SCI-DUD)				
Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Point estimate	95% CI (lower)	95% CI (upper)	Estimate	Country
0.30	0.22	0.39	●	0.21	0.15	0.27	●	Tonga
▲	▲	▲	○	▲	▲	▲	○	Trinidad and Tobago
▲	▲	▲	○	0.13	0.08	0.18	●	Tunisia
0.50	0.42	0.59	●	0.33	0.26	0.40	●	Türkiye
▲	▲	▲	○	▲	▲	▲	○	Turkmenistan
0.65	0.56	0.73	●	0.59	0.52	0.67	●	Tuvalu
0.19	0.12	0.25	●	0.08	0.04	0.12	●	Uganda
0.50	0.42	0.59	●	0.55	0.47	0.62	●	Ukraine
▲	▲	▲	○	▲	▲	▲	○	United Arab Emirates
0.59	0.50	0.68	●	0.71	0.64	0.78	●	United Kingdom of Great Britain and Northern Ireland
▲	▲	▲	○	0.59	0.52	0.66	●	United Republic of Tanzania
▲	▲	▲	○	▲	▲	▲	○	United States of America
0.12	0.06	0.17	●	0.21	0.15	0.27	●	Uruguay
▲	▲	▲	○	▲	▲	▲	○	Uzbekistan
0.06	0.02	0.10	●	0.05	0.02	0.07	●	Vanuatu
▲	▲	▲	○	▲	▲	▲	○	Venezuela (Bolivarian Republic of)
0.26	0.18	0.33	●	0.32	0.25	0.38	●	Viet Nam
▲	▲	▲	○	▲	▲	▲	○	Yemen
0.26	0.18	0.34	●	0.24	0.17	0.30	●	Zambia
0.50	0.41	0.59	●	0.39	0.32	0.47	●	Zimbabwe

Table A3.2 Service delivery and governance of treatment for substance use disorders

● Available
◐ Limited availability
▲ Missing data
○ Not available

Country	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Afghanistan	○	●	●	●	○	◐	●	●
Albania	▲	▲	▲	▲	▲	▲	▲	▲
Algeria	▲	▲	▲	▲	▲	▲	▲	▲
Andorra	○	○	▲	▲	●	●	●	●
Angola	●	●	●	●	●	●	●	●
Antigua and Barbuda	○	○	○	○	○	○	●	●
Argentina	●	▲	●	▲	●	▲	●	▲
Armenia	●	●	●	●	○	○	●	●
Australia	●	●	●	●	●	●	●	●
Austria	○	○	○	○	○	○	●	●
Azerbaijan	●	●	●	●	○	○	●	●
Bahamas	▲	▲	▲	▲	▲	▲	▲	▲
Bahrain	○	○	●	●	●	●	●	●
Bangladesh	●	●	●	●	◐	◐	●	●
Barbados	○	○	○	○	○	○	●	●
Belarus	○	○	●	●	●	●	●	●
Belgium	●	●	○	○	●	●	●	●
Belize	○	○	▲	▲	●	●	●	●
Benin	○	○	○	○	○	○	●	●
Bhutan	○	○	●	●	●	●	●	●
Bolivia (Plurinational State of)	○	●	○	○	○	○	◐	◐
Bosnia and Herzegovina	▲	▲	▲	▲	▲	▲	▲	▲
Botswana	○	○	▲	▲	◐	◐	◐	◐

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
●	●	○	◐	○	○	○	●	Afghanistan
▲	▲	▲	▲	▲	▲	▲	▲	Albania
▲	▲	▲	▲	▲	▲	▲	▲	Algeria
▲	▲	●	●	●	●	●	●	Andorra
●	●	●	●	●	●	●	●	Angola
○	○	●	●	●	○	○	○	Antigua and Barbuda
●	▲	●	▲	●	▲	●	▲	Argentina
●	●	○	○	○	○	○	○	Armenia
●	●	●	●	●	●	●	●	Australia
○	○	●	●	●	●	◐	◐	Austria
●	●	○	○	●	●	◐	◐	Azerbaijan
▲	▲	▲	▲	▲	▲	▲	▲	Bahamas
●	●	●	●	○	○	●	●	Bahrain
●	●	●	●	○	●	●	●	Bangladesh
○	○	●	●	●	●	○	○	Barbados
●	●	●	●	●	●	●	●	Belarus
○	○	●	●	●	●	●	●	Belgium
▲	▲	●	●	●	●	●	●	Belize
○	○	○	○	○	○	○	○	Benin
●	●	●	●	○	○	●	●	Bhutan
○	○	●	●	○	○	◐	◐	Bolivia (Plurinational State of)
▲	▲	▲	▲	▲	▲	▲	▲	Bosnia and Herzegovina
▲	▲	◐	◐	○	○	●	●	Botswana

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Brazil	▲	▲	▲	▲	●	●	●	●
Brunei Darussalam	▲	▲	▲	▲	▲	▲	▲	▲
Bulgaria	▲	▲	▲	▲	○	○	▲	▲
Burkina Faso	●	●	●	●	◐	◐	◐	◐
Burundi	○	○	○	○	○	○	◐	◐
Cabo Verde	●	●	○	○	●	●	●	●
Cambodia	○	●	●	●	○	○	●	●
Cameroon	▲	▲	▲	▲	▲	▲	▲	▲
Canada	○	○	●	●	●	●	●	●
Central African Republic	○	○	●	●	○	○	●	●
Chad	○	○	○	○	○	○	◐	◐
Chile	●	●	●	●	●	●	●	●
China	○	○	●	●	○	○	●	●
Colombia	●	●	●	●	◐	◐	●	●
Comoros	▲	▲	▲	▲	▲	▲	▲	▲
Congo	○	○	○	○	○	○	●	●
Cook Islands	○	○	○	○	●	●	●	●
Costa Rica	●	●	●	●	●	●	●	●
Côte d'Ivoire	▲	●	●	●	◐	◐	●	●
Croatia	○	○	●	●	○	○	●	●
Cuba	●	●	▲	▲	●	●	●	●
Cyprus	●	●	●	●	●	●	●	●
Czechia	●	●	●	●	●	●	●	●
Democratic People's Republic of Korea	▲	▲	▲	▲	▲	▲	▲	▲

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
▲	▲	●	●	○	○	●	●	Brazil
▲	▲	▲	▲	▲	▲	▲	▲	Brunei Darussalam
▲	▲	▲	▲	○	○	◐	◐	Bulgaria
○	○	◐	◐	○	○	●	●	Burkina Faso
○	○	◐	◐	○	○	◐	◐	Burundi
○	○	●	●	●	●	●	●	Cabo Verde
●	●	▲	●	▲	○	●	●	Cambodia
▲	▲	▲	▲	▲	▲	▲	▲	Cameroon
●	●	●	●	●	●	●	●	Canada
○	○	○	○	○	○	○	○	Central African Republic
○	○	◐	◐	○	○	◐	◐	Chad
●	●	●	●	●	●	●	●	Chile
●	●	●	●	○	○	○	○	China
●	●	●	●	●	●	●	●	Colombia
▲	▲	▲	▲	▲	▲	▲	▲	Comoros
○	○	○	○	○	○	◐	◐	Congo
○	○	○	○	○	○	●	●	Cook Islands
○	○	●	●	●	●	●	●	Costa Rica
●	●	○	○	●	●	●	●	Côte d'Ivoire
●	●	●	●	●	●	◐	◐	Croatia
▲	▲	●	●	●	●	●	●	Cuba
●	●	●	●	●	●	●	●	Cyprus
●	●	●	●	●	●	●	●	Czechia
▲	▲	▲	▲	▲	▲	▲	▲	Democratic People's Republic of Korea

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Democratic Republic of the Congo	○	○	○	○	○	○	◐	◐
Denmark	●	●	●	●	●	●	●	●
Djibouti	▲	▲	▲	▲	▲	▲	▲	▲
Dominica	○	○	○	○	○	○	○	○
Dominican Republic	●	●	●	●	○	○	●	●
Ecuador	●	●	●	●	●	●	●	●
Egypt	●	●	▲	●	○	●	●	●
El Salvador	○	○	▲	▲	○	○	●	●
Equatorial Guinea	▲	▲	▲	▲	▲	▲	▲	▲
Eritrea	▲	▲	▲	▲	▲	▲	▲	▲
Estonia	●	●	●	●	●	○	●	●
Eswatini	○	○	●	●	○	○	●	●
Ethiopia	○	○	○	○	●	●	●	●
Fiji	▲	▲	▲	▲	▲	▲	▲	▲
Finland	●	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●	●
Gabon	▲	▲	▲	▲	▲	▲	▲	▲
Gambia	▲	▲	▲	▲	▲	▲	▲	▲
Georgia	●	●	●	●	○	○	◐	◐
Germany	●	●	●	●	●	●	●	●
Ghana	●	●	○	○	○	○	●	●
Greece	●	●	▲	▲	○	○	●	●
Grenada	○	○	○	○	●	●	●	●
Guatemala	○	○	▲	▲	●	●	◐	◐

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
○	○	◐	◐	○	○	◐	◐	Democratic Republic of the Congo
●	●	●	●	●	●	●	●	Denmark
▲	▲	▲	▲	▲	▲	▲	▲	Djibouti
○	○	○	○	●	○	○	○	Dominica
●	●	●	●	○	○	◐	◐	Dominican Republic
●	●	●	●	●	●	●	●	Ecuador
▲	●	●	●	○	●	●	●	Egypt
▲	▲	●	●	●	●	○	○	El Salvador
▲	▲	▲	▲	▲	▲	▲	▲	Equatorial Guinea
▲	▲	▲	▲	▲	▲	▲	▲	Eritrea
●	●	●	●	○	●	●	◐	Estonia
●	●	●	●	●	○	○	○	Eswatini
○	○	●	●	●	●	●	●	Ethiopia
▲	▲	▲	▲	▲	▲	▲	▲	Fiji
●	●	●	●	●	●	●	●	Finland
●	●	●	●	●	●	●	●	France
▲	▲	▲	▲	▲	▲	▲	▲	Gabon
▲	▲	▲	▲	▲	▲	▲	▲	Gambia
○	○	◐	◐	○	○	◐	◐	Georgia
●	●	●	●	●	●	●	●	Germany
○	○	●	●	○	○	○	◐	Ghana
▲	▲	●	●	●	●	◐	○	Greece
○	○	●	●	●	●	●	●	Grenada
▲	▲	◐	◐	○	○	●	●	Guatemala

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	**Alcohol**	**Drugs**	**Alcohol**	**Drugs**	**Alcohol**	**Drugs**	**Alcohol**	**Drugs**
Guinea	▲	▲	▲	▲	○	○	▲	▲
Guinea-Bissau	▲	▲	▲	▲	▲	▲	▲	▲
Guyana	○	○	●	●	○	○	○	○
Haiti	▲	▲	▲	▲	▲	▲	▲	▲
Honduras	○	○	▲	▲	○	○	◐	◐
Hungary	●	●	●	●	○	○	●	●
Iceland	●	●	○	○	○	○	●	●
India	▲	▲	▲	▲	◐	◐	●	●
Indonesia	○	●	▲	●	●	●	○	●
Iran (Islamic Republic of)	●	●	●	●	●	●	●	●
Iraq	●	●	●	●	○	○	●	●
Ireland	●	●	●	●	●	●	●	●
Israel	●	●	▲	●	○	○	◐	●
Italy	○	○	○	○	○	○	●	●
Jamaica	○	○	○	○	◐	◐	●	●
Japan	▲	▲	●	●	●	●	●	●
Jordan	●	●	▲	▲	◐	◐	●	●
Kazakhstan	●	●	●	●	○	○	●	●
Kenya	●	●	●	●	◐	◐	●	●
Kiribati	▲	▲	▲	▲	▲	▲	▲	▲
Kuwait	▲	▲	▲	▲	▲	▲	▲	▲
Kyrgyzstan	▲	○	●	●	○	○	●	●
Lao People's Democratic Republic	▲	○	▲	▲	▲	○	▲	●
Latvia	○	●	●	●	●	●	●	●

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
▲	▲	▲	▲	▲	▲	○	◐	Guinea
▲	▲	▲	▲	▲	▲	▲	▲	Guinea-Bissau
●	●	●	●	○	○	◐	◐	Guyana
▲	▲	▲	▲	▲	▲	▲	▲	Haiti
▲	▲	●	●	●	●	○	○	Honduras
●	●	●	●	○	○	◐	◐	Hungary
○	○	●	●	○	○	◐	◐	Iceland
▲	▲	●	●	●	●	●	●	India
▲	●	◐	●	○	●	●	●	Indonesia
●	●	◐	◐	●	●	●	●	Iran (Islamic Republic of)
●	●	◐	◐	○	○	◐	◐	Iraq
●	●	●	●	●	●	●	●	Ireland
▲	●	●	●	●	●	◐	◐	Israel
○	○	●	●	○	○	◐	◐	Italy
○	○	●	●	○	○	●	●	Jamaica
●	●	●	●	●	●	●	●	Japan
▲	▲	●	●	●	●	●	●	Jordan
●	●	●	●	●	●	●	●	Kazakhstan
●	●	●	●	●	●	●	●	Kenya
▲	▲	▲	▲	▲	▲	▲	▲	Kiribati
▲	▲	▲	▲	▲	▲	▲	▲	Kuwait
●	●	●	●	●	○	●	●	Kyrgyzstan
▲	▲	▲	◐	▲	○	▲	◐	Lao People's Democratic Republic
○	○	●	●	●	●	●	●	Latvia

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Lebanon	●	●	▲	▲	▲	▲	●	●
Lesotho	▲	▲	▲	▲	▲	▲	▲	▲
Liberia	●	●	●	●	●	●	●	●
Libya	▲	▲	▲	▲	▲	▲	▲	▲
Lithuania	○	○	●	●	○	○	●	●
Luxembourg	○	○	▲	▲	○	○	●	●
Madagascar	▲	▲	▲	▲	▲	▲	▲	▲
Malawi	▲	▲	▲	▲	▲	▲	▲	▲
Malaysia	○	●	●	●	●	●	●	●
Maldives	▲	▲	▲	▲	▲	▲	▲	▲
Mali	○	○	○	○	○	○	○	○
Malta	●	●	●	●	○	○	●	●
Marshall Islands	▲	▲	▲	▲	▲	▲	▲	▲
Mauritania	▲	▲	▲	▲	▲	▲	▲	▲
Mauritius	▲	▲	▲	▲	▲	▲	▲	▲
Mexico	○	○	○	○	●	●	◐	◐
Micronesia (Federated States of)	●	●	○	○	○	○	●	●
Monaco	○	○	○	○	●	●	●	●
Mongolia	●	●	●	●	●	◐	●	▲
Montenegro	▲	▲	▲	▲	▲	▲	▲	▲
Morocco	●	●	●	●	●	●	●	●
Mozambique	○	○	○	○	◐	◐	◐	◐
Myanmar	○	○	▲	▲	○	○	●	●
Namibia	▲	▲	▲	▲	▲	▲	▲	▲

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
▲	▲	●	●	▲	▲	▲	▲	Lebanon
▲	▲	▲	▲	▲	▲	▲	▲	Lesotho
●	●	◐	◐	●	●	●	●	Liberia
▲	▲	▲	▲	▲	▲	▲	▲	Libya
○	○	●	●	●	●	●	○	Lithuania
▲	▲	●	●	●	●	○	○	Luxembourg
▲	▲	▲	▲	▲	▲	▲	▲	Madagascar
▲	▲	▲	▲	▲	▲	▲	▲	Malawi
●	●	●	●	●	●	●	●	Malaysia
▲	▲	▲	▲	▲	▲	▲	▲	Maldives
○	○	○	○	○	○	○	○	Mali
●	●	●	●	●	●	○	○	Malta
▲	▲	▲	▲	▲	▲	▲	▲	Marshall Islands
▲	▲	▲	▲	▲	▲	▲	▲	Mauritania
▲	▲	▲	▲	▲	▲	▲	▲	Mauritius
○	○	◐	◐	●	●	●	●	Mexico
○	○	●	●	○	●	○	○	Micronesia (Federated States of)
○	○	●	●	●	●	●	●	Monaco
○	○	●	▲	●	▲	●	●	Mongolia
▲	▲	▲	▲	▲	▲	▲	▲	Montenegro
○	○	◐	◐	●	●	●	●	Morocco
○	○	◐	◐	○	○	●	●	Mozambique
▲	▲	●	●	○	●	◐	◐	Myanmar
▲	▲	▲	▲	▲	▲	▲	▲	Namibia

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Nauru	▲	▲	▲	▲	▲	▲	▲	▲
Nepal	○	○	○	○	○	○	●	●
Netherlands (Kingdom of the)	●	●	●	●	◐	◐	●	●
New Zealand	●	●	●	●	●	●	●	●
Nicaragua	●	●	●	●	●	●	●	●
Niger	▲	▲	▲	▲	▲	▲	▲	▲
Nigeria	○	○	○	○	○	○	○	◐
Niue	▲	▲	▲	▲	▲	▲	▲	▲
North Macedonia	○	○	●	●	◐	◐	●	●
Norway	●	●	●	●	○	○	●	●
Oman	●	●	●	●	○	○	●	●
Pakistan	○	○	○	○	○	○	●	●
Palau	▲	▲	▲	▲	▲	▲	▲	▲
Panama	○	○	▲	▲	○	○	●	●
Papua New Guinea	○	○	○	○	●	●	○	○
Paraguay	○	○	○	●	○	○	●	●
Peru	○	○	●	●	●	●	○	○
Philippines	▲	●	▲	●	▲	◐	▲	●
Poland	○	○	▲	▲	○	○	●	●
Portugal	●	●	●	●	●	●	●	●
Qatar	○	○	○	○	○	○	●	●
Republic of Korea	●	○	●	▲	●	○	●	●
Republic of Moldova	●	●	●	●	○	○	●	●
Romania	○	○	○	○	●	○	●	●

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	**Drugs**	**Alcohol**	**Drugs**	**Alcohol**	**Drugs**	**Alcohol**	**Drugs**	**Country**
▲	▲	▲	▲	▲	▲	▲	▲	Nauru
○	○	●	●	○	○	●	○	Nepal
●	●	●	●	●	●	●	●	Netherlands (Kingdom of the)
○	○	●	●	●	●	●	●	New Zealand
●	●	●	●	●	●	●	●	Nicaragua
▲	▲	▲	▲	▲	▲	▲	▲	Niger
○	○	○	◐	○	○	◐	◐	Nigeria
▲	▲	▲	▲	▲	▲	▲	▲	Niue
●	●	●	◐	○	○	●	●	North Macedonia
●	●	●	●	○	○	◐	◐	Norway
●	●	●	●	○	○	○	○	Oman
○	○	◐	◐	○	○	○	○	Pakistan
▲	▲	▲	▲	▲	▲	▲	▲	Palau
▲	▲	●	●	○	○	○	◐	Panama
○	○	○	○	○	○	●	●	Papua New Guinea
○	●	●	●	○	○	○	○	Paraguay
●	●	●	●	●	○	●	●	Peru
▲	●	▲	●	▲	●	▲	●	Philippines
▲	▲	●	●	○	○	○	○	Poland
●	●	●	●	●	●	●	●	Portugal
○	○	●	●	○	○	○	○	Qatar
●	▲	●	○	○	○	●	◐	Republic of Korea
●	●	●	●	●	●	◐	○	Republic of Moldova
○	○	◐	◐	●	●	●	○	Romania

Table A3.2 *continued*

Country	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Russian Federation	○	●	●	●	●	●	●	●
Rwanda	●	●	●	●	●	●	●	●
Saint Kitts and Nevis	○	○	○	○	○	○	●	●
Saint Lucia	○	○	▲	▲	○	○	○	○
Saint Vincent and the Grenadines	○	○	○	○	○	●	●	●
Samoa	▲	▲	▲	▲	▲	▲	▲	▲
San Marino	●	●	●	●	◐	◐	●	●
Sao Tome and Principe	▲	▲	▲	▲	▲	▲	▲	▲
Saudi Arabia	●	●	●	●	◐	◐	●	●
Senegal	○	○	○	○	◐	◐	●	●
Serbia	○	○	●	●	○	○	●	●
Seychelles	●	●	●	●	○	○	●	●
Sierra Leone	○	●	●	●	○	○	○	○
Singapore	○	●	○	○	◐	◐	●	●
Slovakia	●	●	○	○	○	○	●	●
Slovenia	●	●	●	●	◐	◐	●	●
Solomon Islands	▲	▲	▲	▲	▲	▲	▲	▲
Somalia	○	○	○	○	○	○	○	○
South Africa	●	●	●	●	●	●	●	●
South Sudan	○	○	●	●	○	○	◐	◐
Spain	●	●	●	●	●	○	●	●
Sri Lanka	●	●	○	●	●	●	●	●
Sudan	○	○	●	●	○	○	●	●
Suriname	●	●	●	●	◐	◐	○	○

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
○	○	●	●	○	○	●	●	Russian Federation
●	●	●	●	●	●	●	●	Rwanda
○	○	○	○	●	●	○	○	Saint Kitts and Nevis
▲	▲	●	●	●	●	○	○	Saint Lucia
○	○	○	○	○	○	●	●	Saint Vincent and the Grenadines
▲	▲	▲	▲	▲	▲	▲	▲	Samoa
○	○	●	●	○	○	●	●	San Marino
▲	▲	▲	▲	▲	▲	▲	▲	Sao Tome and Principe
○	○	●	●	○	○	●	●	Saudi Arabia
○	○	○	◐	●	●	●	●	Senegal
●	●	●	●	○	○	○	○	Serbia
●	●	●	●	●	●	●	●	Seychelles
●	●	○	◐	○	○	○	○	Sierra Leone
○	○	●	●	●	●	●	●	Singapore
○	○	●	●	●	●	◐	◐	Slovakia
○	○	●	●	●	●	●	●	Slovenia
▲	▲	▲	▲	▲	▲	▲	▲	Solomon Islands
○	○	○	○	○	○	○	○	Somalia
○	○	●	●	●	○	●	●	South Africa
●	●	◐	◐	○	○	◐	◐	South Sudan
●	●	●	●	●	●	●	●	Spain
○	●	●	●	○	●	●	●	Sri Lanka
●	●	●	●	○	○	◐	◐	Sudan
●	●	●	●	○	○	●	●	Suriname

Table A3.2 *continued*

Country	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Sweden	●	●	●	●	●	●	●	●
Switzerland	●	●	○	○	◐	◐	●	●
Syrian Arab Republic	●	●	○	○	●	●	●	●
Tajikistan	●	●	●	●	●	●	●	●
Thailand	●	●	●	●	●	●	●	●
Timor-Leste	▲	▲	▲	▲	▲	▲	▲	▲
Togo	▲	▲	▲	▲	▲	▲	▲	▲
Tonga	○	○	●	●	◐	◐	●	●
Trinidad and Tobago	▲	▲	▲	▲	▲	▲	▲	▲
Tunisia	▲	●	▲	●	○	○	▲	○
Türkiye	○	○	●	●	◐	●	●	●
Turkmenistan	●	●	●	●	●	●	●	●
Tuvalu	▲	▲	▲	▲	▲	▲	▲	▲
Uganda	○	○	○	○	◐	○	◐	◐
Ukraine	●	●	●	●	○	○	●	●
United Arab Emirates	▲	▲	▲	▲	○	○	●	●
United Kingdom of Great Britain and Northern Ireland	○	●	●	●	●	○	●	●
United Republic of Tanzania	▲	●	▲	●	◐	◐	●	●
United States of America	▲	▲	▲	▲	▲	▲	▲	▲
Uruguay	○	○	○	●	○	○	●	●
Uzbekistan	▲	▲	▲	▲	▲	▲	▲	▲
Vanuatu	○	○	○	○	○	○	◐	◐
Venezuela (Bolivarian Republic of)	▲	▲	▲	▲	▲	▲	▲	▲
Viet Nam	●	●	●	●	◐	○	●	●

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
●	●	●	●	●	●	●	●	Sweden
○	○	●	●	●	●	●	●	Switzerland
○	○	○	○	○	○	●	●	Syrian Arab Republic
●	●	●	●	●	●	●	●	Tajikistan
●	●	●	●	●	●	●	●	Thailand
▲	▲	▲	▲	▲	▲	▲	▲	Timor-Leste
▲	▲	▲	▲	▲	▲	▲	▲	Togo
●	○	●	●	●	●	●	●	Tonga
▲	▲	▲	▲	▲	▲	▲	▲	Trinidad and Tobago
▲	●	●	●	▲	○	●	●	Tunisia
●	●	●	●	○	○	●	●	Türkiye
●	●	●	●	○	○	●	●	Turkmenistan
▲	▲	▲	▲	▲	▲	▲	▲	Tuvalu
○	○	◐	◐	○	○	●	◐	Uganda
●	●	◐	◐	●	●	◐	◐	Ukraine
▲	▲	●	●	○	○	◐	◐	United Arab Emirates
●	●	●	●	●	●	●	◐	United Kingdom of Great Britain and Northern Ireland
▲	●	●	●	●	●	●	●	United Republic of Tanzania
▲	▲	▲	▲	▲	▲	▲	▲	United States of America
○	●	●	●	●	●	○	○	Uruguay
▲	▲	▲	▲	▲	▲	▲	▲	Uzbekistan
○	○	◐	◐	○	○	◐	◐	Vanuatu
▲	▲	▲	▲	▲	▲	▲	▲	Venezuela (Bolivarian Republic of)
○	○	●	●	○	●	●	◐	Viet Nam

Table A3.2 *continued*

	Governmental unit or governmental official at national level, responsible for policy regarding treatment of SUD		National treatment guidelines/standards for the public specialized treatment services		Specialized services		Pharmacological treatment for people with SUD	
Country	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Yemen	▲	▲	▲	▲	▲	▲	▲	▲
Zambia	○	○	▲	▲	◐	◐	●	●
Zimbabwe	●	●	●	●	○	○	●	●

Psychosocial interventions for treatment of SUD		Rehabilitation programs for people with SUD		Mutual help/peer support groups for people living with SUD		Screening and brief intervention programmes		
Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	**Country**
▲	▲	▲	▲	▲	▲	▲	▲	Yemen
▲	▲	◐	◐	○	○	●	●	Zambia
●	●	●	●	○	○	●	●	Zimbabwe

Table A3.3 Health workforce availability and access to training in identification and management of substance use disorders

● Available
▲ Missing data
○ Not available

	Availability of professionals for treatment of SUD							
Country	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Afghanistan	●	●	○	○	●	●	●	●
Albania	▲	▲	▲	▲	▲	▲	▲	▲
Algeria	▲	▲	▲	▲	▲	▲	▲	▲
Andorra	●	●	●	○	●	○	○	●
Angola	●	●	●	○	●	○	○	○
Antigua and Barbuda	●	●	●	○	●	●	○	○
Argentina	●	●	●	●	●	●	●	●
Armenia	●	●	○	○	○	○	○	○
Australia	●	●	●	●	●	●	●	●
Austria	●	●	●	○	○	●	●	●
Azerbaijan	●	●	●	●	●	●	●	●
Bahamas	▲	▲	▲	▲	▲	▲	▲	▲
Bahrain	●	●	●	●	○	●	●	●
Bangladesh	●	●	●	○	●	●	●	○
Barbados	●	●	●	○	●	○	○	○
Belarus	●	●	●	●	●	○	○	●
Belgium	●	●	●	●	●	●	○	○
Belize	●	●	●	○	●	●	●	●
Benin	●	●	●	●	●	○	●	○
Bhutan	●	○	○	○	●	●	●	○
Bolivia (Plurinational State of)	●	●	●	○	●	○	●	○
Bosnia and Herzegovina	▲	▲	▲	▲	▲	▲	▲	▲
Botswana	●	●	●	○	●	●	○	○
Brazil	●	●	●	●	●	○	●	○
Brunei Darussalam	▲	▲	▲	▲	▲	▲	▲	▲

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
●	○	●	○	○	○	○	○	Afghanistan
▲	▲	▲	▲	▲	▲	▲	▲	Albania
▲	▲	▲	▲	▲	▲	▲	▲	Algeria
○	○	○	○	○	○	○	○	Andorra
●	○	○	○	○	○	○	○	Angola
○	○	○	○	○	○	○	○	Antigua and Barbuda
●	●	●	●	●	○	○	○	Argentina
○	○	○	○	○	○	○	○	Armenia
●	●	●	●	●	●	●	●	Australia
○	○	○	○	○	○	○	○	Austria
●	●	●	●	●	●	●	●	Azerbaijan
▲	▲	▲	▲	▲	▲	▲	▲	Bahamas
●	○	○	○	○	○	○	○	Bahrain
●	●	●	○	●	●	●	○	Bangladesh
○	○	○	○	○	○	○	○	Barbados
●	●	○	●	○	○	○	○	Belarus
●	●	●	●	●	●	○	●	Belgium
●	●	●	○	○	○	○	○	Belize
●	●	●	○	○	○	○	○	Benin
○	○	○	○	○	○	○	○	Bhutan
●	●	●	○	●	●	○	○	Bolivia (Plurinational State of)
▲	▲	▲	▲	▲	▲	▲	▲	Bosnia and Herzegovina
○	○	○	○	○	○	○	○	Botswana
○	○	○	○	○	○	○	○	Brazil
▲	▲	▲	▲	▲	▲	▲	▲	Brunei Darussalam

Table A3.3 *continued*

	Availability of professionals for treatment of SUD							
Country	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Bulgaria	▲	▲	▲	▲	▲	▲	▲	▲
Burkina Faso	○	○	○	○	○	○	○	○
Burundi	○	○	○	○	○	○	○	○
Cabo Verde	●	●	●	○	●	●	○	○
Cambodia	●	●	●	○	●	○	○	○
Cameroon	▲	▲	▲	▲	▲	▲	▲	▲
Canada	●	●	●	●	●	●	●	●
Central African Republic	●	●	●	○	●	○	○	○
Chad	●	●	○	●	●	●	●	●
Chile	●	●	●	○	●	●	●	○
China	○	○	○	○	○	○	○	○
Colombia	●	●	●	●	●	○	○	○
Comoros	▲	▲	▲	▲	▲	▲	▲	▲
Congo	●	●	●	○	●	○	●	●
Cook Islands	○	●	○	○	●	○	○	○
Costa Rica	●	●	●	●	●	●	●	○
Côte d'Ivoire	●	●	●	○	●	○	●	○
Croatia	●	●	●	○	●	○	○	○
Cuba	●	●	●	●	●	●	●	○
Cyprus	●	●	○	○	●	○	●	●
Czechia	●	●	●	●	●	●	●	●
Democratic People's Republic of Korea	▲	▲	▲	▲	▲	▲	▲	▲
Democratic Republic of the Congo	○	○	○	○	○	○	○	○
Denmark	○	○	○	○	○	○	○	○
Djibouti	▲	▲	▲	▲	▲	▲	▲	▲

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
▲	▲	▲	▲	▲	▲	▲	▲	Bulgaria
○	○	○	○	○	○	○	○	Burkina Faso
○	○	○	○	○	○	○	○	Burundi
○	○	○	○	○	○	○	○	Cabo Verde
●	●	●	●	○	○	○	○	Cambodia
▲	▲	▲	▲	▲	▲	▲	▲	Cameroon
●	●	●	●	●	●	●	●	Canada
○	●	○	○	○	○	○	○	Central African Republic
○	○	○	○	○	○	○	○	Chad
●	●	●	○	●	●	●	○	Chile
○	○	○	○	○	○	○	○	China
●	●	●	●	●	○	○	○	Colombia
▲	▲	▲	▲	▲	▲	▲	▲	Comoros
○	●	○	○	○	○	○	○	Congo
○	○	○	○	○	○	○	○	Cook Islands
○	○	○	○	○	○	○	○	Costa Rica
○	○	○	○	○	○	○	○	Côte d'Ivoire
○	○	○	○	○	○	○	○	Croatia
●	●	●	●	●	●	●	○	Cuba
○	●	○	○	●	○	●	●	Cyprus
●	●	●	○	●	●	●	●	Czechia
▲	▲	▲	▲	▲	▲	▲	▲	Democratic People's Republic of Korea
○	○	○	○	○	○	○	○	Democratic Republic of the Congo
○	○	○	○	○	○	○	○	Denmark
▲	▲	▲	▲	▲	▲	▲	▲	Djibouti

Table A3.3 *continued*

	Availability of professionals for treatment of SUD							
Country	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Dominica	●	○	○	○	○	○	○	○
Dominican Republic	●	●	●	○	●	●	●	●
Ecuador	●	●	●	○	●	○	○	○
Egypt	●	●	●	○	●	○	○	○
El Salvador	●	●	●	○	○	●	○	○
Equatorial Guinea	▲	▲	▲	▲	▲	▲	▲	▲
Eritrea	▲	▲	▲	▲	▲	▲	▲	▲
Estonia	●	●	●	○	●	●	●	●
Eswatini	●	●	●	○	●	○	○	○
Ethiopia	●	●	●	○	●	●	●	○
Fiji	▲	▲	▲	▲	▲	▲	▲	▲
Finland	●	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●	○
Gabon	▲	▲	▲	▲	▲	▲	▲	▲
Gambia	▲	▲	▲	▲	▲	▲	▲	▲
Georgia	○	○	○	○	○	○	○	○
Germany	●	●	●	●	○	●	●	●
Ghana	●	●	●	●	●	●	●	●
Greece	●	●	●	○	●	●	●	●
Grenada	●	●	●	○	●	●	●	●
Guatemala	●	●	○	●	○	●	○	○
Guinea	▲	▲	▲	▲	▲	▲	▲	▲
Guinea-Bissau	▲	▲	▲	▲	▲	▲	▲	▲
Guyana	●	●	●	○	●	○	●	●
Haiti	▲	▲	▲	▲	▲	▲	▲	▲
Honduras	●	●	●	●	●	●	○	○

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
○	○	○	○	○	○	○	○	Dominica
○	○	○	○	○	○	○	○	Dominican Republic
●	●	○	○	○	○	○	○	Ecuador
○	○	○	○	○	○	○	○	Egypt
○	○	○	○	○	○	○	○	El Salvador
▲	▲	▲	▲	▲	▲	▲	▲	Equatorial Guinea
▲	▲	▲	▲	▲	▲	▲	▲	Eritrea
●	●	●	○	●	●	●	●	Estonia
○	○	○	○	○	○	○	○	Eswatini
●	●	●	○	●	○	○	○	Ethiopia
▲	▲	▲	▲	▲	▲	▲	▲	Fiji
●	●	●	●	●	●	●	●	Finland
●	●	○	●	●	○	○	○	France
▲	▲	▲	▲	▲	▲	▲	▲	Gabon
▲	▲	▲	▲	▲	▲	▲	▲	Gambia
○	○	○	○	○	○	○	○	Georgia
○	○	○	○	○	○	○	○	Germany
●	●	●	●	●	○	○	○	Ghana
●	●	●	○	●	○	○	○	Greece
○	○	○	○	○	○	○	○	Grenada
●	○	○	○	○	○	○	○	Guatemala
▲	▲	▲	▲	▲	▲	▲	▲	Guinea
▲	▲	▲	▲	▲	▲	▲	▲	Guinea-Bissau
○	○	○	○	○	○	○	○	Guyana
▲	▲	▲	▲	▲	▲	▲	▲	Haiti
○	○	○	○	○	○	○	○	Honduras

Table A3.3 *continued*

Country	Availability of professionals for treatment of SUD							
	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Hungary	●	●	●	●	●	●	○	○
Iceland	●	●	●	●	●	●	○	●
India	●	●	●	●	●	○	○	○
Indonesia	●	●	●	●	●	●	●	●
Iran (Islamic Republic of)	●	●	●	●	●	●	●	●
Iraq	●	●	●	○	●	○	○	○
Ireland	●	●	●	●	●	●	●	●
Israel	●	○	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	○
Jamaica	●	●	●	●	●	●	○	●
Japan	●	●	●	●	●	●	●	●
Jordan	●	●	●	○	●	○	●	●
Kazakhstan	●	●	●	●	●	●	●	○
Kenya	●	●	●	○	●	●	●	●
Kiribati	▲	▲	▲	▲	▲	▲	▲	▲
Kuwait	▲	▲	▲	▲	▲	▲	▲	▲
Kyrgyzstan	●	●	○	●	●	○	○	○
Lao People's Democratic Republic	○	○	○	○	○	○	○	○
Latvia	●	●	●	●	●	○	○	○
Lebanon	●	●	●	○	●	○	●	●
Lesotho	▲	▲	▲	▲	▲	▲	▲	▲
Liberia	●	○	○	○	●	●	●	●
Libya	▲	▲	▲	▲	▲	▲	▲	▲
Lithuania	●	●	●	○	●	●	●	○
Luxembourg	●	●	●	●	●	●	●	●
Madagascar	▲	▲	▲	▲	▲	▲	▲	▲

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
●	○	○	○	●	○	○	○	Hungary
○	○	○	○	○	○	○	○	Iceland
●	○	○	●	○	●	○	○	India
●	●	○	●	●	●	○	○	Indonesia
●	●	○	○	○	●	○	○	Iran (Islamic Republic of)
●	●	○	○	●	○	○	○	Iraq
●	●	●	●	●	●	●	○	Ireland
●	○	●	●	●	●	●	●	Israel
○	○	○	○	○	○	○	○	Italy
●	●	○	●	○	○	○	○	Jamaica
●	●	●	●	●	●	●	●	Japan
●	○	○	○	○	○	○	○	Jordan
●	●	●	●	●	●	●	○	Kazakhstan
●	●	●	○	●	●	○	○	Kenya
▲	▲	▲	▲	▲	▲	▲	▲	Kiribati
▲	▲	▲	▲	▲	▲	▲	▲	Kuwait
●	○	○	●	●	○	○	○	Kyrgyzstan
○	○	○	○	○	○	○	○	Lao People's Democratic Republic
●	○	○	●	○	○	○	○	Latvia
○	○	○	○	○	○	○	○	Lebanon
▲	▲	▲	▲	▲	▲	▲	▲	Lesotho
○	○	○	○	○	○	○	○	Liberia
▲	▲	▲	▲	▲	▲	▲	▲	Libya
●	●	●	○	●	○	○	○	Lithuania
○	○	○	○	○	○	○	○	Luxembourg
▲	▲	▲	▲	▲	▲	▲	▲	Madagascar

Table A3.3 *continued*

Country	Availability of professionals for treatment of SUD							
	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Malawi	▲	▲	▲	▲	▲	▲	▲	▲
Malaysia	●	●	○	○	○	○	○	○
Maldives	▲	▲	▲	▲	▲	▲	▲	▲
Mali	●	●	○	○	○	○	○	○
Malta	●	●	●	○	●	○	○	○
Marshall Islands	▲	▲	▲	▲	▲	▲	▲	▲
Mauritania	▲	▲	▲	▲	▲	▲	▲	▲
Mauritius	▲	▲	▲	▲	▲	▲	▲	▲
Mexico	●	●	●	●	●	●	○	○
Micronesia (Federated States of)	○	○	○	○	○	●	●	○
Monaco	●	●	●	●	●	○	○	○
Mongolia	●	●	●	●	●	●	●	○
Montenegro	▲	▲	▲	▲	▲	▲	▲	▲
Morocco	●	●	●	●	●	○	●	●
Mozambique	●	●	●	○	●	●	○	○
Myanmar	●	○	●	●	●	●	●	●
Namibia	▲	▲	▲	▲	▲	▲	▲	▲
Nauru	▲	▲	▲	▲	▲	▲	▲	▲
Nepal	●	●	○	●	●	○	●	○
Netherlands (Kingdom of the)	●	●	●	●	●	●	○	●
New Zealand	●	●	●	●	●	●	●	●
Nicaragua	●	●	●	●	●	●	●	●
Niger	▲	▲	▲	▲	▲	▲	▲	▲
Nigeria	○	○	○	○	○	○	○	○
Niue	▲	▲	▲	▲	▲	▲	▲	▲
North Macedonia	●	●	●	○	●	○	○	○

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	Country
▲	▲	▲	▲	▲	▲	▲	▲	Malawi
●	●	○	○	○	●	○	○	Malaysia
▲	▲	▲	▲	▲	▲	▲	▲	Maldives
○	○	○	○	○	○	○	○	Mali
●	●	●	○	●	○	○	○	Malta
▲	▲	▲	▲	▲	▲	▲	▲	Marshall Islands
▲	▲	▲	▲	▲	▲	▲	▲	Mauritania
▲	▲	▲	▲	▲	▲	▲	▲	Mauritius
●	●	●	●	●	●	○	○	Mexico
○	○	○	○	○	○	○	○	Micronesia (Federated States of)
●	●	○	●	●	○	○	○	Monaco
●	○	●	○	●	●	○	○	Mongolia
▲	▲	▲	▲	▲	▲	▲	▲	Montenegro
○	○	○	○	○	○	○	○	Morocco
●	○	○	○	○	○	○	○	Mozambique
●	○	○	○	○	○	○	○	Myanmar
▲	▲	▲	▲	▲	▲	▲	▲	Namibia
▲	▲	▲	▲	▲	▲	▲	▲	Nauru
○	○	○	○	○	○	○	○	Nepal
●	●	●	●	●	●	●	●	Netherlands (Kingdom of the)
●	●	●	●	●	●	●	●	New Zealand
●	●	●	●	●	○	○	○	Nicaragua
▲	▲	▲	▲	▲	▲	▲	▲	Niger
○	○	○	○	○	○	○	○	Nigeria
▲	▲	▲	▲	▲	▲	▲	▲	Niue
●	●	●	○	●	○	○	○	North Macedonia

Table A3.3 *continued*

Country	Availability of professionals for treatment of SUD							
	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Norway	●	●	●	●	●	●	●	●
Oman	●	●	●	○	●	●	●	○
Pakistan	○	○	○	○	○	○	○	○
Palau	▲	▲	▲	▲	▲	▲	▲	▲
Panama	●	●	●	○	●	○	●	○
Papua New Guinea	●	●	●	●	●	●	●	●
Paraguay	●	●	●	●	●	●	○	○
Peru	●	●	●	○	●	○	○	○
Philippines	●	●	●	●	●	●	○	○
Poland	●	●	○	●	●	○	○	○
Portugal	●	●	●	○	●	●	●	●
Qatar	●	●	●	●	●	●	○	○
Republic of Korea	●	●	●	○	●	●	●	○
Republic of Moldova	●	●	●	●	●	●	●	○
Romania	●	●	○	●	○	○	○	●
Russian Federation	●	●	○	●	●	○	●	○
Rwanda	○	○	○	○	○	○	○	○
Saint Kitts and Nevis	●	●	●	●	●	●	●	●
Saint Lucia	●	○	○	○	○	●	○	○
Saint Vincent and the Grenadines	○	○	○	○	○	○	○	○
Samoa	▲	▲	▲	▲	▲	▲	▲	▲
San Marino	●	●	●	○	●	○	○	○
Sao Tome and Principe	▲	▲	▲	▲	▲	▲	▲	▲
Saudi Arabia	○	○	○	○	○	○	○	○
Senegal	●	●	●	●	●	○	●	○
Serbia	●	●	●	●	●	○	○	○

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
●	●	●	●	●	●	●	●	Norway
●	●	●	○	○	○	○	○	Oman
○	○	○	○	○	○	○	○	Pakistan
▲	▲	▲	▲	▲	▲	▲	▲	Palau
○	○	○	○	○	○	○	○	Panama
●	●	●	●	●	●	●	●	Papua New Guinea
●	●	●	○	●	○	○	○	Paraguay
●	●	●	○	○	○	○	○	Peru
●	○	○	●	○	○	○	○	Philippines
○	○	○	●	○	○	○	○	Poland
●	●	●	○	●	●	●	●	Portugal
○	○	○	○	○	○	○	○	Qatar
●	●	●	○	●	○	○	○	Republic of Korea
●	●	○	●	●	●	●	○	Republic of Moldova
○	○	○	○	○	○	○	○	Romania
●	○	○	●	●	○	●	○	Russian Federation
○	○	○	○	○	○	○	○	Rwanda
○	○	○	○	○	○	○	○	Saint Kitts and Nevis
○	○	○	○	○	○	○	○	Saint Lucia
○	○	○	○	○	○	○	○	Saint Vincent and the Grenadines
▲	▲	▲	▲	▲	▲	▲	▲	Samoa
○	○	○	○	○	○	○	○	San Marino
▲	▲	▲	▲	▲	▲	▲	▲	Sao Tome and Principe
○	○	○	○	○	○	○	○	Saudi Arabia
●	○	●	●	○	○	○	○	Senegal
●	○	○	○	○	○	○	○	Serbia

Table A3.3 *continued*

Country	Availability of professionals for treatment of SUD							
	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Seychelles	●	●	●	○	●	○	○	●
Sierra Leone	○	○	○	○	○	○	○	○
Singapore	●	●	●	●	●	●	●	●
Slovakia	●	●	○	●	●	○	○	●
Slovenia	●	●	●	●	●	●	●	●
Solomon Islands	▲	▲	▲	▲	▲	▲	▲	▲
Somalia	○	○	○	○	○	○	○	○
South Africa	●	●	●	●	●	●	●	●
South Sudan	○	○	○	○	○	○	○	○
Spain	●	●	●	○	●	○	●	●
Sri Lanka	●	●	●	●	●	●	●	●
Sudan	●	●	●	○	○	○	○	○
Suriname	●	○	●	○	●	●	○	●
Sweden	●	●	●	●	●	●	●	●
Switzerland	●	●	●	●	●	●	●	●
Syrian Arab Republic	●	●	●	○	●	○	●	○
Tajikistan	●	●	●	●	●	●	●	○
Thailand	●	●	●	●	●	●	●	●
Timor-Leste	▲	▲	▲	▲	▲	▲	▲	▲
Togo	▲	▲	▲	▲	▲	▲	▲	▲
Tonga	●	●	○	○	●	○	●	●
Trinidad and Tobago	▲	▲	▲	▲	▲	▲	▲	▲
Tunisia	●	●	○	○	●	○	○	○
Türkiye	●	●	●	○	●	○	○	○
Turkmenistan	●	○	○	●	○	○	○	○
Tuvalu	▲	▲	▲	▲	▲	▲	▲	▲

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
○	○	○	○	○	○	○	○	Seychelles
○	○	○	○	○	○	○	○	Sierra Leone
○	○	○	○	○	○	○	○	Singapore
○	○	○	○	○	○	○	○	Slovakia
●	●	●	○	○	○	○	○	Slovenia
▲	▲	▲	▲	▲	▲	▲	▲	Solomon Islands
○	○	○	○	○	○	○	○	Somalia
●	●	●	●	●	●	●	●	South Africa
○	○	○	○	○	○	○	○	South Sudan
●	●	●	○	●	○	●	●	Spain
●	●	●	○	○	●	○	○	Sri Lanka
○	○	○	○	○	○	○	○	Sudan
○	○	○	○	○	○	○	○	Suriname
●	○	○	○	○	○	○	○	Sweden
●	●	●	●	●	●	○	●	Switzerland
●	●	○	○	●	○	○	●	Syrian Arab Republic
●	●	●	●	●	○	○	○	Tajikistan
●	●	●	●	●	●	●	●	Thailand
▲	▲	▲	▲	▲	▲	▲	▲	Timor-Leste
▲	▲	▲	▲	▲	▲	▲	▲	Togo
●	●	○	○	●	○	●	●	Tonga
▲	▲	▲	▲	▲	▲	▲	▲	Trinidad and Tobago
●	●	○	●	○	○	○	○	Tunisia
●	●	●	○	●	○	○	○	Türkiye
●	○	○	●	○	○	○	○	Turkmenistan
▲	▲	▲	▲	▲	▲	▲	▲	Tuvalu

Table A3.3 *continued*

	Availability of professionals for treatment of SUD							
Country	Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers
Uganda	●	●	●	○	●	○	●	○
Ukraine	●	●	●	●	●	●	●	●
United Arab Emirates	●	●	●	●	●	●	●	○
United Kingdom of Great Britain and Northern Ireland	●	●	●	●	●	●	●	●
United Republic of Tanzania	●	●	●	●	●	●	●	●
United States of America	▲	▲	▲	▲	▲	▲	▲	▲
Uruguay	●	●	●	○	●	●	●	●
Uzbekistan	▲	▲	▲	▲	▲	▲	▲	▲
Vanuatu	○	○	○	○	○	○	○	○
Venezuela (Bolivarian Republic of)	▲	▲	▲	▲	▲	▲	▲	▲
Viet Nam	●	○	○	○	●	○	○	○
Yemen	▲	▲	▲	▲	▲	▲	▲	▲
Zambia	●	●	●	○	●	○	○	○
Zimbabwe	●	●	●	●	●	●	●	●

Availability of postgraduate training for treatment of SUD								
Psychiatrists	Psychologists	Social worker	Addiction medicine specialists	Nurses	Addiction counsellors	Community Health Workers	Outreach/ field workers	**Country**
●	●	○	○	○	○	○	○	Uganda
●	●	○	●	●	○	○	○	Ukraine
●	●	●	●	●	●	●	○	United Arab Emirates
○	○	○	○	○	○	○	○	United Kingdom of Great Britain and Northern Ireland
○	○	○	○	○	○	○	○	United Republic of Tanzania
▲	▲	▲	▲	▲	▲	▲	▲	United States of America
●	●	●	○	●	●	●	●	Uruguay
▲	▲	▲	▲	▲	▲	▲	▲	Uzbekistan
○	○	○	○	○	○	○	○	Vanuatu
▲	▲	▲	▲	▲	▲	▲	▲	Venezuela (Bolivarian Republic of)
●	○	○	○	○	○	○	○	Viet Nam
▲	▲	▲	▲	▲	▲	▲	▲	Yemen
○	○	○	○	○	○	○	○	Zambia
●	●	○	○	○	○	○	○	Zimbabwe

ANNEX 4

Estimates of drug-attributable disease burden

Table A4.1 Drug-attributable deaths (total number of deaths) by type of drugs, all ages, 2000, 2010 and 2019

	Total number of deaths (minimum – maximum)		
	2000	2010	2019
All drugs			
Men	323 843 (224 066 – 600 474)	369 281 (248 934 – 632 652)	418 664 (302 200 – 719 748)
Women	118 913 (87 839 – 180 685)	134 881 (91 647 – 210 831)	164 847 (117 084 – 268 510)
Both	442 756 (318 486 – 726 557)	504 161 (357 487 – 1 012 487)	583 511 (404 625 – 1 143 063)
Amphetamine	47 098 (28 806 – 124 621)	47 677 (28 786 – 111 368)	46 661 (28 894 – 132 179)
Cannabis	14 917 (8 853 – 24 106)	14 926 (8 780 – 24 448)	14 206 (9 407 – 23 925)
Cocaine	18 870 (12 164 – 50 588)	23 402 (17 091 – 52 008)	26 082 (18 483 – 52 608)
Opioids	329 024 (209 063 – 697 289)	379 942 (256 752 – 687 036)	448 489 (282 489 – 856 814)
Other	32 714 (25 136 – 41 538)	37 991 (29 442 – 50 983)	48 074 (34 579 – 68 305)

Table A4.2 Drug attributable DALYs (absolute numbers and uncertainty ranges) by type of drugs, 2000, 2010 and 2019

	Total number of DALYs (minimum – maximum)		
	2000	2010	2019
All drugs			
Men	20 293 230 (15 210 871 – 25 609 576)	22 719 520 (16 676 320 – 28 761 260)	24 871 318 (19 249 326 – 30 940 470)
Women	8 916 043 (7 035 235 – 11 312 263)	10 166 847 (7 696 628 – 13 775 985)	11 868 580 (9 068 656 – 15 963 710)
Both	29 209 272 (22 681 562 – 36 272 556)	32 886 368 (25 140 684 – 44 645 944)	36 739 896 (27 925 714 – 48 643 808)
Amphetamine	3 466 909 (2 307 888 – 5 560 055)	3 388 182 (2 252 883 – 5 185 240)	3 184 608 (2 166 363 – 5 098 862)
Cannabis	1 624 323 (1 099 634 – 2 321 987)	1 704 637 (1 160 808 – 2 544 377)	1 713 390 (1 243 009 – 2 658 237)
Cocaine	1 425 415 (998 996 – 2 290 035)	1 681 298 (1 255 370 – 2 528 573)	1 757 875 (1 299 045 – 2 606 199)
Opioids	20 161 752 (14 075 660 – 28 137 240)	23 322 150 (17 145 998 – 31 778 704)	26 999 066 (18 744 336 – 38 096 684)
Other	2 513 038 (1 901 267 – 3 397 802)	2 752 368 (2 105 334 – 3 795 419)	3 084 959 (2 264 872 – 4 138 311)

Figure A4.1 Deaths (absolute numbers) attributable to drug use by WHO regions and years, all ages, all sexes, 2000–2019

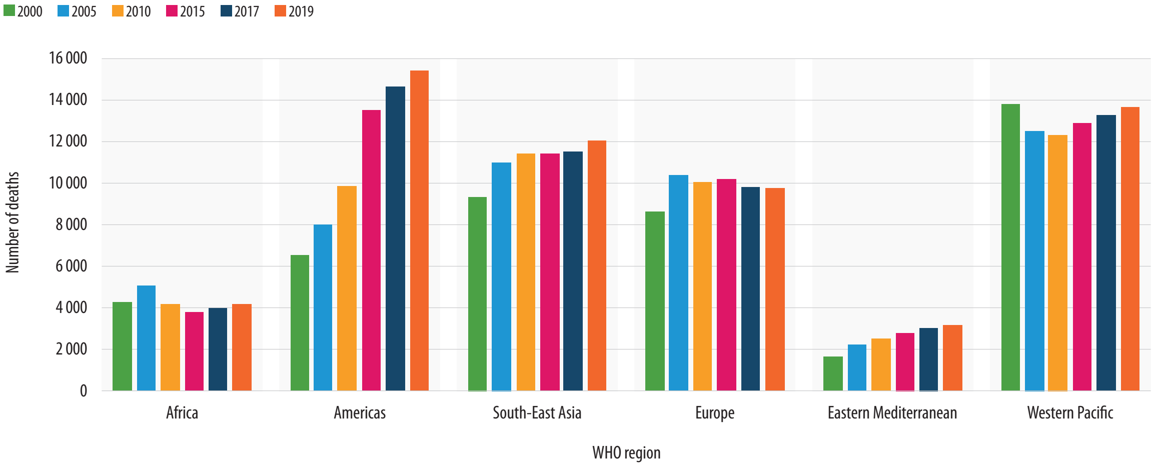
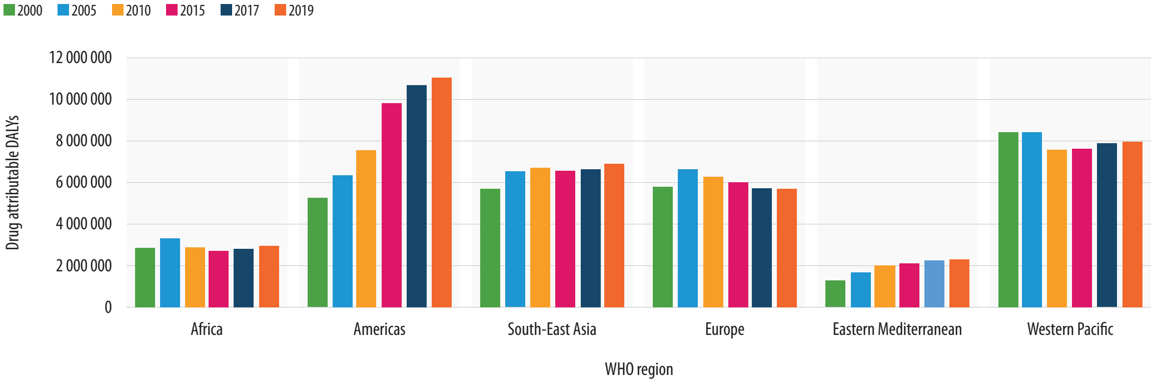


Figure A4.2 Drug attributable DALYs (absolute numbers) by WHO regions and years, all ages, all sexes, 2000–2019



References

Acuff SF, Strickland JC, Tucker JA, Murphy JG (2022). Changes in alcohol use during COVID-19 and associations with contextual and individual difference variables: a systematic review and meta-analysis. Psychol Addict Behav. 36(1):1.

Ad Age (2020). Ad Age World's Largest Advertisers 2020. Detroit (MI): Crain Communications; (https://adage.com/datacenter/globalmarketers2020, accessed 11 September 2023).

Adi Y, Juarez-Garcia A, Wang D, Jowitt S, Frew E, Day E et al. (2007). Oral naltrexone as a treatment for relapse prevention in formerly opioid-dependent drug users: a systematic review and economic evaluation. Health Technol Assess. 11(6):iiiiv,1–85. Doi:10.3310/hta11060.

Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M (2001). Age standardization of rates: a new WHO standard, in Series Age standardization of rates: a new WHO standard, Geneva: World Health Organization.

Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M (2001). Age standardization of rates: a new WHO standard. GPE Discussion Paper Series: No.31. Geneva: World Health Organization (https://cdn.who.int/media/docs/default-source/gho-documents/global-health-estimates/gpe_discussion_paper_series_paper31_2001_age_standardization_rates.pdf, accessed 16 October 2023).

Akasaki Y, Ohishi M (2020). Cerebrovascular and cardiovascular diseases caused by drugs of abuse. Hypertension Research. 43:363–371.

Akechi T, Iwasaki M, Uchitomi Y, Tsugane S (2018). Alcohol consumption and suicide among middle-aged men in Japan. Br J Psychiatry. 188(3):231–6. doi:10.1192/bjp.188.3.231.

Alavi M, Janjua NZ, Chong M, Grebely J, Aspinall EJ, Innes H et al. (2018). The contribution of alcohol use disorder to decompensated cirrhosis among people with hepatitis C: An international study. J Hepatol. 68:393–401. doi:10.1016/j.jhep.2017.10.019.

Angus C, Latimer N, Preston L, Li J, Purshouse R (2014). What are the implications for policy makers? A systematic review of the cost-effectiveness of screening and brief interventions for alcohol misuse in primary care. Front Psychiatry. 5:114. doi:10.3389/fpsyt.2014.00114.

Angus C, Scafato E, Ghirini S, Torbica A, Ferre F, Struzzo P et al. (2014). Cost-effectiveness of a programme of screening and brief interventions for alcohol in primary care in Italy. BMC Fam Pract. 15(1):26. Doi:10.1186/1471-2296-15-26.

Asadi-Lari M, Packham C, Gray D (2003). Need for redefining needs. Health and quality of life outcomes. 1(1):34.

Asbridge M, Hayden JA, Cartwright JL (2012). Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis. BMJ. 344:e536. doi:10.1136/bmj.e536.

Austin G (1978). Perspectives on the history of psychoactive substance use. National Institute on Drug Abuse Research Issues, Vol. 24. Washington (DC): DHEW Publication No. (ADM) 79–810.

Avanceña ALV, Miller N, Uttal SE, Hutton DW, Mellinger JL (2021). Cost-effectiveness of alcohol use treatments in patients with alcohol-related cirrhosis. J Hepatol. 74(6):1286–94. Doi:10.1016/j.jhep.2020.12.004.

Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham K et al. (2010). Alcohol: no ordinary commodity. Research and Public Policy, second edition. Oxford: Oxford University Press.

Babor TF (2017). Development of services for substance use problems: the need for a system based approach. Eastern Mediterranean Health Journal. 23(3):206–13.

Babor TF (2021). Treatment systems for population management of substance use disorders: requirements and priorities from a public health perspective. In: el-Guebaly N, Carrà G, Galanter M, Baldacchino AM, editors. Textbook of addiction treatment. Cham: Springer.

Babor TF, Casswell S, Graham K, Huckle T, Livingston M, Österberg E et al. (2022). Alcohol: no ordinary commodity: Research and Public Policy, third edition. Oxford: Oxford University Press (https://doi.org/10.1093/oso/9780192844484.001.0001, accessed 3 April 2024).

Babor TF, Caulkins JC, Fischer B, Foxcroft DR, Humphreys K, Medina-Mora ME et al. (2018). Drug policy and the public good, second edition. Oxford: Oxford University Press.

Babor TF, Poznyak V (2010). The World Health Organization substance abuse instrument for mapping services: rationale, structure and functions. Nordic Studies on Alcohol and Drugs, 27(6), 703–12.

Babor TF, Robaina K, Brown K, Noel J, Cremonte M, Pantani D et al. (2018). Is the alcohol industry doing well by 'doing good'? Findings from a content analysis of the alcohol industry's actions to reduce harmful drinking. BMJ Open. 8:e024325. doi:10.1136/bmjopen-2018-024325

Bagnardi V, Rota M, Botteri E, Tramacere I, Islami F, Fedirko V et al. (2015). Alcohol consumption and site-specific cancer risk: a comprehensive dose-response meta-analysis. Br J Cancer 112:580-593.

Barbosa C, Cowell A, Dowd W, Landwehr J, Aldridge A, Bray J (2017). The cost-effectiveness of brief intervention versus brief treatment of Screening, Brief Intervention and Referral to Treatment (SBIRT) in the United States. Addiction. 112(S2):73–81. Doi:10.1111/add.13658.

Barclay G, Barbour J, Stewart S, Day C, Gilvarry E (2008). Adverse physical effects of alcohol misuse. Adv Psychiatr Treat 14:139–51.

Bartolomei F, Suchet L, Barrie M, Gastaut J-L (1997). Alcoholic epilepsy: a unified and dynamic classification. Eur. Neurol. 37:13–7.

Baser O, Chalk M, Rawson R, Gastfriend DR (2011). Alcohol dependence treatments: comprehensive healthcare costs, utilization outcomes, and pharmacotherapy persistence. Am J Manag Care. 1(17)Suppl 8:S222–34.

Bellis MA, Hughes K, Nicholls J, Sheron N, Gilmore I, Jones L (2016). The alcohol harm paradox: using a national survey to explore how alcohol may disproportionately impact health in deprived individuals. BMC Public Health. 16:111.

Bennett T, Holloway K (2005). Understanding drugs, alcohol and crime. Maidenhead: Open University Press.

Berdzuli N, Ferreira-Borges C, Gual A, Rehm J (2020). Alcohol control policy in Europe. Overview and exemplary countries. Int J Environ Res Public Health. 17(21):E8162. doi: 10.3390/ijerph17218162.

Bidary MZ, Sahranavard M, Rezayat AA, Omranzadeh A, Hoseiny SH, Kabirian A et al. (2021). Opium as a carcinogen: a systematic reviews and meta-analysis. EClinicalMedicine. 33:100768.

Blas E, Kurup AS (2010). Equity, social determinants and public health programmes. Geneva: World Health Organization (https://iris.who.int/handle/10665/44289, accessed 28 April 2024).

Blecher E, Liber A, Van Walbeek C, Rossouw L (2018). An international analysis of the price and affordability of beer. PLoS One. 13:e0208831. doi: 10.1371/journal.pone.0208831.

Boden JM, Fergusson DM (2011). Alcohol and depression. Addiction. 106(5):906–14. doi: 10.1111/j.1360-0443.2010.03351.x.

Boerma T, AbouZahr C, Evans D, Evans T. (2014) Monitoring intervention coverage in the context of universal health coverage. PloS Med. 11(9):e1001728. Doi:10.1371/journal.pmed.1001728.

Braganza JM, Lee SH, McCloy RF, McMahon MJ (2011). Chronic pancreatitis. Lancet 377:1184–97.

Bukten A, Skurtveit S, Gossop M, Waal H, Stangeland P, Havnes I et al. (2012). Engagement with opioid maintenance treatment and reductions in crime: a longitudinal national cohort study. Addiction. 107:393–9.

Cameron-Burr KT, Conicella A, Neavyn MJ (2021). Opioid use and driving performance. J Med Toxicol. 17:289–309.

Colbert S, Wilkinson C, Thornton L, Feng X, Richmond R, 2021. Online alcohol sales and home delivery: an international policy review and systematic literature review. Health Policy. 125:1222–37. doi: 10.1016/j.healthpol.2021.07.005.

Collins MA, Neafsey EJ, Mukamal KJ, Gray MO, Parks DA, Das DK, Korthuis RJ (2009). Alcohol in moderation, cardioprotection, and neuroprotection: epidemiological considerations and mechanistic studies. Alcohol Clin Exp Res. 33:206–19.

Colson E, Scudder T (1988). For prayer and profit: the ritual, economic, and social importance of beer in Gwembe District, Zambia, 1950–1982. Stanford (CA): Stanford University Press.

Connor JP, Haber PS, Hall WD (2016). Alcohol use disorders. Lancet. 387(10022):988–98. doi: 10.1016/S0140-6736(15)00122-1.

Cook BL, Wayne GF, Kafali EN, Liu Z, Shu C, Flores M (2014). Trends in smoking among adults with mental illness and association between mental health treatment and smoking cessation. Jama. 311(2):172.

Cordovilla-Guardia S, Ortega-Ortega M, Epstein D, Fernández-Mondéjar E, Vilar-López R (2020). Economic analysis of brief motivational intervention following trauma related to drugs and alcohol. Nurs Res. 69(5):358–66. Doi:10.1097/NNR.0000000000000455.

Corredor-Waldron A, Currie J (2022). Tackling the substance use disorder crisis: the role of access to treatment facilities. J Health Econ. 81:102579.

Cortes VF, Taveira A, Cruz HM, Reis AA, Cezar JS, Silva BS et al. (2017). Prevalence of Hepatitis B and C virus infection among alcoholic individuals: importance of screening and vaccination. Rev Inst Med Trop Sao Paulo. 59:e47. doi: 10.1590/S1678-9946201759047.

Courtwright DT (2002). Forces of habit: drugs and the making of the modern world. Cambridge (MA): Harvard University Press.

Darvishi N, Farhadi M, Haghtalab T, Poorolajal J (2015). Alcohol-related risk of suicidal ideation, suicide attempt, and completed suicide: a meta-analysis. PLoS One. 10(5):e0126870. doi: 10.1371/journal.pone.0126870. Erratum in: PLoS One. 2020 Oct 29;15(10):e0241874.

De Silva MJ, Lee L, Fuhr DC, Rathod S, Chisholm D, Schellenberg J et al. (2014). Estimating the coverage of mental health programmes: a systematic review. Int J Epidemiol. 43(2):341–53. Doi:10.1093/ije/dyt191.

Degenhardt L, Webb P, Colledge-Frisby S, Ireland J, Wheeler A, Ottaviano S et al. (2023). Epidemiology of injecting drug use, prevalence of injecting-related harm, and exposure to behavioural and environmental risks among people who inject drugs: a systematic review. Lancet Public Health. 11(5):E659–72 (https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(23)00057-8/fulltext, accessed 12 May 2024).

DeJong W, Blanchette J (2014). Case closed: research evidence on the positive health impact of the age 21 minimum legal drinking age in the United States. J Stud Alcohol Drugs. 75:108–15.

Ding C, O'Neill D, Bell S, Stamatakis E, Britton A (2021). Association of alcohol consumption with morbidity and mortality in patients with cardiovascular disease: original data and meta-analysis of 48,423 men and women. BMC Med. 19(1):167.

Dregan A, McNeill A, Gaughran F, Jones PB, Bazley A, Cross S et al. (2020). Potential gains in life expectancy from reducing amenable mortality among people diagnosed with serious mental illness in the United Kingdom. PLoS One, 15(3):e0230674.

Dunlop AJ, Brown AL, Oldmeadow C, Harris A, Gill A, Sadler C et al. (2017). Effectiveness and cost-effectiveness of unsupervised buprenorphine-naloxone for the treatment of heroin dependence in a randomized waitlist controlled trial. Drug Alcohol Depend. 174:181–91. Doi:10.1016/j.drugalcdep.2017.01.016.

Dwommoh R, Sorsdahl K, Myers B, Asante KP, Naledi P, Stein DJ et al. (2018). Brief interventions to address substance use among patients presenting to emergency departments in resource poor settings: a cost-effectiveness analysis. Cost Eff Resour Alloc CE. 16:24. Doi:10.1186/s12962-018-0109-8.

Elvik R (2013). Risk of road accident associated with the use of drugs: a systematic review and meta-analysis of evidence from epidemiological studies. Accid Anal Prev. 60:2:54–67. doi: 10.1016/j.aap.2012.06.017.

ESPAD (2015). European School Survey Project on Alcohol and Other Drugs (ESPAD) report 2015. European Monitoring Centre for Drugs and Drug Addiction and ESPAD. Luxembourg: Publications Office of the European Union.

Euromonitor (2023). Alcoholic beverages: market sizes. Euromonitor (https://www-portal-euromonitor-com.proxy1.library.jhu.edu/portal/statisticsevolution/index#, accessed 23 January 2023).

Ezzati M, Lopez A, Rodgers A, Murray CJL (2004). Comparative quantification of health risks. Global and regional burden of disease attributable to selected major risk factors. Geneva: World Health Organization.

Fairley M, Humphreys K, Joyce VR, Bounthavong M, Trafton J, Combs A et al. (2021). Cost-effectiveness of treatments for opioid use disorder. JAMA Psychiatry. 2021;78(7):767–77. Doi:10.1001/jamapsychiatry.2021.0247.

Fares A, Wright M, Matheson J, Mann R, Stoduto G, Le Foll B et al. (2022). Effects of combining alcohol and cannabis on driving, breath alcohol level, blood THC, cognition, and subjective effects: a narrative review. Exp Clin Psychopharmacol. 30(6):1036–49. doi:10.1037/pha0000533.

Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Pirkis JE, Harris MG et al. (2014). The burden attributable to mental and substance use disorders as risk factors for suicide: findings from the Global Burden of Disease Study 2010. PLoS One. 9(4):e91936. doi:10.1371/journal.pone.0091936.

Feunekes GI, van't Veer P, van Staveren WA, Kok FJ (1999). Alcohol intake assessment: the sober facts. Am J Epidemiol. 150:105-112.

Formánek T, Krupchanka D, Mladá K, Winkler P, Jones PB (2022). Mortality and life-years lost following subsequent physical comorbidity in people with pre-existing substance use disorders: a national registry-based retrospective cohort study of 52hospitalized individuals in Czechia. Lancet Psychiatry. 9(12):957–68.

Friedman SR, Tempalski B, Brady JE, West BS, Pouget ER, Williams LD et al. (2016). Income inequality, drug-related arrests, and the health of people who inject drugs: reflections on seventeen years of research. Int J Drug Policy. 32:11–6. doi: 0.1016/j.drugpo.2016.03.003.

Gao B, Bataller R (2011) Alcoholic liver disease: pathogenesis and new therapeutic targets. Gastroenterology 141:1572–85.

GBD 2019 Risk Factors Collaborators (2020). Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 396:1223–49. https://doi.org/10.1016/S0140-6736(20)30752-2.

Ghebreyesus TA (2017). All roads lead to universal health coverage. (https://www.who.int/news-room/commentaries/detail/all-roads-lead-to-universal-health-coverage, accessed 27 November 2023).

Global Burden of Disease Collaborative Network (2020). Global Burden of Disease Study 2019. (GBD 2019) results. Seattle: Institute for Health Metrics and Evaluation (http://ghdx.healthdata.org/gbd-results-tool, accessed 21 April 2024).

Gmel G, Rehm J (2004). Measuring alcohol consumption. Contemp Drug Probl. 31:467.

Gmel G, Shield KD, Frick H, Kehoe T, Gmel G, Rehm J (2011). Estimating uncertainty of alcohol-attributable fractions for infectious and chronic diseases. BMC Med Res Methodol. 11:1–12.

Gmel G, Shield KD, Kehoe-Chan TAK, Rehm J (2013). The effects of capping the alcohol consumption distribution and relative risk functions on the estimated number of deaths attributable to alcohol consumption in the European Union in 2004. BMC Med Res Methodol. 13:24.

Griswold MG, Fullman N, Hawley C, Arian N, Zimsen SR, Tymeson HD et al. (2018). Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet 392:1015–35.

Grundy A, Poirier AE, Khandwala F, McFadden A, Friedernreich CM, Brenner DR (2016). Cancer inicidence attributable to alcohol consumption in Alberta in 2012. CMAJ Open. 4:E507.

Guiraud V, Amor MB, Mas J-L, Touze E (2010). Triggers of ischemic stroke: a systematic review. Stroke. 41:2669–77.

Hall W, Stjepanović D, Caulkins J, Lynskey M, Leung J, Campbell G et al. (2019). Public health implications of legalising the production and sale of cannabis for medicinal and recreational use. Lancet. 394(10208):1580–90. doi: 10.1016/S0140-6736(19)31789-1.

Hingson R, White A (2014). New research findings since the 2007 Surgeon General's Call to Action to Prevent and Reduce Underage Drinking: a review. J Stud Alcohol Drugs. 75:158–69. doi: 10.15288/jsad.2014.75.158.

Holder H, Parker RN (1992) Effect of alcoholism treatment on cirrhosis mortality: a 20-year multivariate time series analysis. Br J Addict . 87:1263–74.

Horn BP, Crandall C, Forcehimes A, French MT, Bogenschutz M (2017). Benefit-cost analysis of SBIRT interventions for substance using patients in emergency departments. J Subst Abuse Treat. 79:6–11. Doi:10.1016/j.jsat.2017.05.003.

Hu A, Jiang H, Dowling R, Guo L, Zhao X, Hao W et al. (2022). The transition of alcohol control in China 1990–2019: impacts and recommendations. Int J Drug Policy. 105:103698.

Huckle T, Parker K, Romeo JS, Casswell S (2021). Online alcohol delivery is associated with heavier drinking during the first New Zealand COVID-19 pandemic restrictions. Drug Alcohol Rev. 40:826–34. doi: 10.1111/dar.13222.

Hudak ML, Tan RC, Committee on Drugs, Committee on Fetus and Newborn, American Academy of Pediatrics (2012). Neonatal drug withdrawal. Pediatrics, 129(2):e540–60. doi: 10.1542/peds.2011-3212.

Humeniuk RE, Ali RL, Babor T, Souza-Formigoni MLO, de Lacerda RB, Ling W et al. (2012). A randomized controlled trial of a brief intervention for illicit drugs linked to the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in clients recruited from primary health-care settings in four countries. Addiction. 107(5):957–66.

Humphreys K, Blodgett JC, Wagner TH (2014). Estimating the efficacy of Alcoholics Anonymous without self-selection bias: an instrumental variables re-analysis of randomized clinical trials. Alcohol Clin Exp Res. 38(11):2688–94. Doi: 10.1111/acer.12557. PMID: 25421504; PMCID: PMC4285560.

Hunt GE, Malhi GS, Lai HMX, Cleary M (2020). Prevalence of comorbid substance use in major depressive disorder in community and clinical settings, 1990–2019: systematic review and meta-analysis. J Affect Disord. 266:288–304. doi: 10.1016/j.jad.2020.01.141.

IARC (2010). IARC monographs on the evaluation of carcinogenic risks to humans. Vol. 96 – Alcohol consumption and ethyl carbamate. Lyon: International Agency for Research on Cancer.

IARC (2021). IARC monographs on the evaluation of carcinogenic hazards to humans. Volume 126 – Opium consumption. Lyon: International Agency for Research on Cancer.

Idrisov B, Murphy SM, Morrill T, Saadoun M, Lunze K, Shepard D (2017). Implementation of methadone therapy for opioid use disorder in Russia – a modeled cost-effectiveness analysis. Subst Abuse Treat Prev Policy. 12(1):4. Doi:10.1186/s13011-016-0087-9.

Imtiaz S, Shield KD, Roerecke M, Samokhvalov AV, Lonnroth K, Rehm J (2017). Alcohol consumption as a risk factor for tuberculosis: meta-analyses and burden of disease. Eur Respir J. 50:1700216.

International Agency for Research on Cancer (2007). IARC monographs on the evaluation of carcinogenic risks to humans, Volume 96: Alcohol consumption and ethyl carbamate. Lyon: International Agency for Research on Cancer.

International Agency for Research on Cancer (2009). IARC monographs on the evaluation of carcinogenic risks to humans, Volume 100E: Personal habits and indoor combustions. Lyon: International Agency for Research on Cancer.

International Narcotics Control Board (2016). Availability of internationally controlled drugs: ensuring adequate access for medical and scientific purposes. Indispensable, adequately available and not unduly restricted. Vienna: International Narcotics Control Board (E/INCB/2015/1/Supp.1).

IWSR (2023). Global beverage alcohol rebounds, with value reaching US$1.17 trillion. London: IWSR Drinks Market Analysis Limited (https://www.theiwsr.com/global-beverage-alcohol-rebounds-in-2021-with-value-reaching-us1-17-trillion/, accessed 16 October 2023).

Jeandet P, Bessis R, Maume BF, Sbaghi M (1993). Analysis of resveratrol in Burgundy wines. Journal of Wine Research. 4:79–85.

Jernigan DH, Trangenstein PJ (2020). What's next for WHO's global strategy to reduce the harmful use of alcohol? Bull World Health Organ. 98:222–3. doi: 10.2471/blt.19.241737.

Jernigan DH, Yeh J-C (2022). Annex 2: Summary of a commissioned paper on the scope and size of global alcohol marketing. In: Reducing the harm from alcohol by regulating cross-border alcohol marketing, advertising and promotion: a technical report. Geneva: World Health Organization; 136–9.

Kaner EF, Beyer FR, Muirhead C, Campbell F, Pienaar ED, Bertholet N et al. (2018). Effectiveness of brief alcohol interventions in primary care populations. Cochrane Database Syst Rev. 2(2):CD004148. Doi: 10.1002/14651858. CD004148.pub4.

Karriker-Jaffe K, Room R, Giesbrecht N, Greenfield TK (2018). Alcohol's harm to others: opportunities and challenges in a public health framework. J Stud Alcohol Drugs. 79(2):239–43.

Kehoe T, Gmel G, Shield KD, Gmel G, Rehm J (2012). Determining the best population-level alcohol consumption model and its impact on estimates of alcohol-attributable harms. Popul Health Metr. 10:6.

Kelly E, Darke S, Ross J (2004). A review of drug use and driving: epidemiology, impairment, risk factors and risk perceptions. Drug Alcohol Rev. 23(3):319–44.

Kelly JF, Abry A, Ferri M, Humphreys K (2020). Alcoholics Anonymous and 12-step facilitation treatments for alcohol use disorder: a distillation of a 2020 Cochrane review for clinicians and policy makers. Alcohol and Alcoholism. 55 (6):641–51.

Kenworthy J, Yi Y, Wright A, Brown J, Maria Madrigal A, Dunlop WCN (2017). Use of opioid substitution therapies in the treatment of opioid use disorder: results of a UK cost-effectiveness modelling study. J Med Econ. 20(7) :740–8. doi: 10.1080/13696998.2017.1325744.

Kickbusch I, Allen L, Franz C (2016). The commercial determinants of health. Lancet Glob Health. 4(12):e895–6. doi: 10.1016/S2214-109X(16)30217-0.

Kilian C, O'Donnell A, Potapova N, López-Pelayo H, Schulte B, Miquel L et al. (2022). Changes in alcohol use during the COVID-19 pandemic in Europe: a meta-analysis of observational studies. Drug Alcohol Rev. 41(4):918–31. doi: https://doi.org/10.1111/dar.13446.

Kim ST, Park T (2019). Acute and chronic effects of cocaine on cardiovascular health. Int J Mol Sci. 20:584. doi: 10.3390/ijms20030584.

King ES, Heymann H (2014.) The effect of reduced alcohol on the sensory profiles and consumer preferences of white wine. J Sens Stud. 29:33–42.

Knott C, Bell S, Britton A (2015). Alcohol consumption and the risk of type 2 diabetes: a systematic review and dose-response meta-analysis of more than 1.9 million individuals from 38 obersvational studies. Diabetes Care. 38:1804–12.

Koehl JL, Zimmerman DE, Bridgeman PJ (2019). Medications for management of opioid use disorder. Am J Health Syst Pharm. 76:1097–103.

Kokole D, Anderson P, Jané-Llopis E (2021). Nature and potential impact of alcohol health warning labels: a scoping review. Nutrients. 13. doi: 10.3390/nu13093065.

Kolla BP, Oesterle T, Gold M, Southwick F, Rummans T (2020). Infectious diseases occurring in the context of substance use disorders: a concise review. J Neurol Sci. 411:116719.

Kraemer KL (2007). The cost-effectiveness and cost-benefit of screening and brief intervention for unhealthy alcohol use in medical settings. Subst Abuse. 28(3):67–7. doi:10.1300/J465v28n03_07.

Krebs E, Enns B, Evans E, Urada D, Anglin MD, Rawson RA et al. (2018). Cost-effectiveness of publicly funded treatment of opioid use disorder in California. Ann Intern Med. 168(1):10–9. doi:10.7326/M17-0611.

Krupchanka D, Formanek T, Shield K, Rehm J, Heymans MW, Fleischmann A et al. (2022). International monitoring of capacity of treatment systems for alcohol and drug use disorders: methodology of the Service Capacity Index for Substance Use Disorders. Int J Methods Psychiatr Res. 32(3):e1950.

Lankisch P, Apte M, Banks P (2015). Acute pancreatitis. Lancet. 386:2058.

Laramée P, Brodtkorb TH, Rahhali N, Knight C, Barbosa C, François C et al. (2014). The cost-effectiveness and public health benefit of nalmefene added to psychosocial support for the reduction of alcohol consumption in alcohol-dependent patients with high/very high drinking risk levels: a Markov model. BMJ Open. 4(9):e005376. doi:10.1136/bmjopen-2014-005376.

Larney S, Tran LT, Leung J, Santo T, Santomauro D, Hickman M et al. (2020). All-cause and cause-specific mortality among people using extramedical opioids: a systematic review and meta-analysis. JAMA Psychiatry. 77(5):493–502.

Larsson SC, Wallin A, Wolk A, Markus HS (2016). Differing association of alcohol consumption with different stroke types: a systematic review and meta-analysis. BMC Med. 14:1–11.

Laslett A-M, Catalano P, Chikritzhs T, Dale C, Doran C, Ferris J et al. (2010). The range and magnitude of alcohol's harm to others. Canberra: Alcohol Education and Rehabilitation Foundation (https://fare.org.au/the-range-and-magnitude-of-alcohols-harm-to-others, accessed 24 February 2024).

Lauer JA, Sassi F, Soucat A, Vigo A, editors (2022). Health taxes: policy and practice. Hackensack (NJ): World Scientific.

Leach JP, Mohanraj R, Borland W (2012). Alcohol and drugs in epilepsy: pathophysiology, presentation, possibilities, and prevention. Epilepsia. 53:48–57.

Ledden S, Moran P, Osborn D, Pitman A (2022). Alcohol use and its association with suicide attempt, suicidal thoughts and non-suicidal self-harm in two successive, nationally representative English household samples. BJPsych Open. 8;e192:1–7. doi: 10.1192/bjo.2022.594.

Leong DP, Smyth A, Teo KK, McKee M, Rangarajan S, Pais P et al. (2014). Patterns of alcohol consumption and myocardial infarction risk: observations from 52 countries in the INTERHEART case–control study. Circulation. 130:390–8.

Leurent M, Ducasse D, Courtet P, Olié E (2023). Efficacy of 12-step mutual-help groups other than Alcoholics Anonymous: a systematic review and meta-analysis. Eur Arch Psychiatry Clin Neurosci. https://doi.org/10.1007/s00406-023-01667-x.

Levin ML (1953). The occurrence of lung cancer in man. Acta – Unio Internationalis Contra Cancrum. 9:531–41.

Li J, Fong DYT, Lok KYW, Wong JYH, Man Ho M, Choi EPH et al. (2023). Global impacts of COVID-19 on lifestyles and health and preparation preferences: an international survey of 30 countries. J Glob Health. 13:06031. doi: 10.7189/jogh.13.06031.

Livingston J.D (2020). Structural stigma in health-care contexts for people with mental health and substance use issues: a literature review. Ottawa: Mental Health Commission of Canada (https://mentalhealthcommission.ca/wp-content/uploads/2020/07/structural_stigma_in_healthcare_eng.pdf, accessed 25 October 2023).

Llamosas-Falcón L, Rehm J, Bright S, Buckley C, Carr T, Kilian C et al. (2023). The relationship between alcohol consumption, BMI, and Type 2 diabetes: a systematic review and dose-response meta-analysis. Diabetes Care. 46(11)2076–6683.

Macdonald S, Anglin-Bodrug K, Mann RE, Erickson P, Hathaway A, Chipman M et al. (2003). Injury risk associated with cannabis and cocaine use. Drug Alcohol Depend. 72(2):99–115. doi: 10.1016/s0376-8716(03)00202-3.

MacKillop J, Agabio R, Feldstein Ewing SW, Heilig M, Kelly JF, Leggio L et al. (2022). Hazardous drinking and alcohol use disorders. Nat Rev Dis Primers. 8(1):80.

Majumder S, Chari ST (2016). Chronic pancreatitis. Lancet. 387:1957–66.

Mann RE, Smart R, Anglin L, Rush B (1988). Are decreases in liver cirrhosis rates a result of increased treatment for alcoholism. Br J Addict. 83:683–8.

Marillier M, Verstraete AG (2019). Driving under the influence of drugs. Wiley Interdisciplinary Reviews: Forensic Science. 1(3):e1326. https://doi.org/10.1002/wfs2.1326.

Mazzaglia G, Britton R, Altmann DR, Chenet L (2001). Exploring the relationship between alcohol consumption and non-fatal or fatal stroke: a systematic review. Addiction. 96:1743–56.

Miovsky M, Kalina K, Libra J, Popov P, Pavlovska A (2014a). Education in addictology in the Czech Republic: the scope and role of the proposed system. Adiktologie. 14(3):310–28.

Momen NC, Plana-Ripoll O, Agerbo E, Christensen MK, Iburg KM, Laursen TM, et al (2022). Mortality associated with mental disorders and comorbid general medical conditions. JAMA Psychiatry. 79(5):444–53. doi: 10.1001/jamapsychiatry.2022.0347.

Morisano D, Babor TF, Robaina KA (2014). Co-occurrence of substance use disorders with other psychiatric disorders: implications for treatment services. Nordic Studies on Alcohol and Drugs. 31(1):5–25.

Morley KC, Logge W, Pearson S-A, Baillie A, Haber PS (2017). Socioeconomic and geographic disparities in access to pharmacotherapy for alcohol dependence. J Subst Abuse Treat. 74:23–5.

Moskowitz H (1985). Marijuana and driving. Accid Anal Prev. 17:323–45. doi:10.1016/0001-4575(85)90034-X.

Movendi International (2020). Alcohol obstacle to development: how alcohol affects the Sustainable Development Goals (https://movendi.ngo/the-issues/movendi-library/booklets/, accessed 5 February 2024).

Movig KL, Mathijssen MPM, Nagel PHA, Van Egmond T, De Gier JJ, Leufkens HGM et al. (2004). Psychoactive substance use and the risk of motor vehicle accidents. Accident Anal Prev. 36(4):631–6.

Mukamal KJ, Rimm EB (2001) Alcohol's effects on the risk for coronary heart disease. Alcohol Res Health. 25:255–61.

Mäkelä K, Viikari M (1977). Notes on alcohol and the state. Acta Sociologica. 20(2):155–179.

National Academies of Science Engineering and Medicine (2018). Getting to zero alcohol-impaired driving fatalities: a comprehensive approach to a persistent problem. Washington (DC): National Academies Press.

National Academies of Sciences, Engineering, and Medicine (2017). Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use. Washington (DC): The National Academies Press. https://doi.org/10.17226/24781.

National Highway Traffic Safety Administration (2022). Evaluation of Utah's .05 BAC Per Se Law. Washington (DC): United States Department of Transportation (https://rosap.ntl.bts.gov/view/dot/60427, accessed 23 January 2023).

Neuenschwander M, Ballon A, Weber KS, Norat T, Aune D, Schwingshackl L et al. (2019). Role of diet in type 2 diabetes incidence: umbrella review of meta-analyses of prospective observational studies. BMJ. 366:l2368.

Neufeld M, Bobrova A, Davletov K, Štelemėkas M, Stoppel R, Ferreira-Borges C et al. (2021). Alcohol control policies in Former Soviet Union countries: a narrative review of three decades of policy changes and their apparent effects. Drug Alcohol Rev. 40:350–67.

Olmstead TA, Graff FS, Ames-Sikora A, McCrady BS, Gaba A, Epstein EE (2019). Cost-effectiveness of individual versus group female-specific cognitive behavioral therapy for alcohol use disorder. J Subst Abuse Treat. 100:1–7. doi:10.1016/j.jsat.2019.02.001.

Oquendo MA,Volkow ND (2018). Suicide: a silent contributor to opioid-overdose deaths. N Engl J Med. 378(17):1567–9. doi: 10.1056/NEJMp1801417.

Origer A, LeBihan E, Baumann M (2015). A social gradient in fatal opioids and cocaine related vverdoses. PLoS One. 10(5):e0125568. doi:10.1371/journal.pone.0125568.

Oscar-Berman M, Marinković K (2007). Alcohol: effects on neurobehavioral functions and the brain. Neuropsychol Rev. 17(3):239–57. (https://link.springer.com/article/10.1007/s11065-007-9038-6#Sec2, accessed 25 February 2024).

Over EAB, van Gils PF, Suijkerbuijk AWM, Lokkerbo J, de Wit GA (2019). Social cost-benefit analysis of Cognitive Behavioral Therapy for alcohol and cannabis addiction. Eur J Public Health. 29(Suppl_4):ckz185.792. doi:10.1093/eurpub/ckz185.792.

Owusu-Bempah A, Luscombe A (2021). Race, cannabis and the Canadian war on drugs: an examination of cannabis arrest data by race in five cities. Int J Drug Policy. 91:102937.

O'Keefe JH, Bhatti SK, Bajwa A, DiNicolantonio JJ, Lavie CJ (2014). Alcohol and cardiovascular health: the dose makes the poison… or the remedy. Mayo Clin Proc. 89:382–93.

Patra J, Taylor B, Irving H, Roerecke M, Baliunas D, Mohapatra S et al. (2010). Alcohol consumption and the risk of morbidity and mortality for different stroke types-a systematic review and meta-analysis. BMC Public Health. 10:1–12.

Pavlovská A, Peters RH, Gabrhelík R, Miovský M, Sloboda Z, Babor TF (2019). Overview of the university-based addiction studies programs in the United States. J Subst Use. 24(1):55–60. Doi: Doi:10.1080/14659891.2018.1505970.

Peacock A, Tran LT, Larney S, Stockings E, Santo T, Jones H et al. (2021) All-cause and cause-specific mortality among people with regular or problematic cocaine use: a systematic review and meta-analysis. Addiction. 116:725–42.

Petrilli K, Ofori S, Hines L, Taylor G, Adams S, Freeman TP (2022). Association of cannabis potency with mental ill health and addiction: a systematic review. Lancet Psychiatry. 9(9):736–50.

Piano MR (2017). Alcohol's effects on the cardiovascular system. Alcohol Research: Current Reviews. 38:219.

Plana-Ripoll O, Pedersen CB, Holtz Y, Benros ME, Dalsgaard S, de Jonge P et al. (2019). Exploring comorbidity within mental disorders among a Danish national population. JAMA Psychiatry. 76(3):259–70. doi: 10.1001/jamapsychiatry.2018.3658.

Plana-Ripolli O, Musliner KL, Dalsgaard S, Momen NC, Weye N, Christensen MK et al. (2020). Nature and prevalence of combinations of mental disorders and their association with excess mortality in a population-based cohort study. World Psychiatry. 19(3):339–349. doi: 10.1002/wps.20802.

Polsky S, Akturk HK (2017). Alcohol consumption, diabetes risk, and cardiovascular disease within diabetes. Curr Diab Rep. 17:1–12.

Popova S, Charness ME, Burd L, Crawford A, Hoyme HE, Mukherjee RAS et al. (2023). Fetal alcohol spectrum disorders. Nature Reviews Disease Primers. 9(11).

Poznyak V, Fleischmann A, Rekve D, Rylett M, Rehm J, Gmel G (2013). The World Health Organization's Global Monitoring System on Alcohol and Health. Alcohol Research: Current Reviews. 35(2):244–9.

Probst C, Kilian C, Sanchez S, Lange S, Rehm J (2020). The role of alcohol use and drinking patterns in socioeconomic inequalities in mortality: a systematic review. Lancet Public Health. 5:e324–e332.

Probst C, Lange S, Kilian C, Saul C, Rehm J (2021). The dose-response relationship between socioeconomic deprivation and alcohol-attributable mortality risk – a systematic review and meta-analysis. BMC Med. 19:268. https://doi.org/10.1186/s12916-021-02132-z.

Probst C, Manthey J, Merey A, Rylett M, Rehm J (2018) Unrecorded alcohol use: a global modelling study based on nominal group assessments and survey data. Addiction. 113:1231–41.

Probst C, Roerecke M, Behrendt S, Rehm J (2015). Gender differences in socioeconomic inequality of alcohol-attributable mortality: a systematic review and meta-analysis. Drug Alcohol Rev. 34:267–77.

Puddey IB, Rakic V, Dimmitt SB, Beilin LJ (1999). Influence of pattern of drinking on cardiovascular disease and cardiovascular risk factors – a review. Addiction. 94:649–63.

Pál L, Muhollari T, Bujdosó O, Baranyai E, Nagy A, Árnyas E et al. (2020). Heavy metal contamination in recorded and unrecorded spirits. Should we worry? Regul Toxicol Pharmacol. 116:104723.

Rehm J (1998). Measuring alcohol consumption: how about adopting usual epidemiological standards? Addiction. 93:970.

Rehm J, Baliunas D, Borges GL, Graham K, Irving H, Kehoe T et al. (2010). The relation between different dimensions of alcohol consumption and burden of disease—an overview. Addiction. 105:817-43. doi: 10.1111/j.1360-0443.2010.02899.x.

Rehm J, Gmel Sr GE, Gmel G, Hasan OS, Imtiaz S, Popova S et al. (2017). The relationship between different dimensions of alcohol use and the burden of disease—an update. Addiction. 112(6):968–1001.

Rehm J, Kailasapillai S, Larsen E, Rehm MX, Samokhvalov AV, Shield KD et al. (2014). A systematic review of the epidemiology of unrecorded alcohol consumption and the chemical composition of unrecorded alcohol. Addiction. 109(6):880–93.

Rehm J, Kehoe T, Gmel G, Stinson F, Grant B, Gmel G (2010b). Statistical modeling of volume of alcohol exposure for epidemiological studies of population health: the US example. Popul Health Metr 8:1–12.

Rehm J, Klotsche J, Patra J (2007). Comparative quantification of alcohol exposure as risk factor for global burden of disease. Int J Methods Psychiatr Res.16(2):66–76.

Rehm J, Poznyak V (2015). On monitoring unrecorded alcohol consumption. Alcoholism and Drug Addiction. 28:79–89.

Rehm J, Probst C, Shield K, Shuper P (2017). Does alcohol use have a causal effect on HIV incidence and disease progression? A review of the literature and a modeling strategy for quantifying the effect. Popul Health Metr. 15:4.

Rehm J, Samokhvalov AV, Neuman MG, Room R, Parry C, Lönnroth K et al. (2009). The association between alcohol use, alcohol use disorders and tuberculosis (TB). A systematic review. BMC Public Health. 9:450.

Rehm J, Shield KD, Roerecke M, Gmel G (2016). Modelling the impact of alcohol consumption on cardiovascular disease mortality for comparative risk assessments: an overview. BMC Public Health. 16:363.

Richter KP, Levy S (2014). Big marijuana – lessons from big tobacco. N Engl J Med. 371:399–401. doi: 10.1056/NEJMp1406074.

Rizk MM, Herzog S, Dugad S, Stanley B (2021). Suicide risk and addiction: the impact of alcohol and opioid use disorders. Curr Addict Rep. 8:194–207.

Robbe H. Marijuana's impairing effects on driving are moderate when taken alone but severe when combined with alcohol. Hum Psychopharmacol. 13(S2):S70–8.

Roberts A, Rogers J, Mason R, Siriwardena AN, Hogue T, Whitley GA et al. (2021). Alcohol and other substance use during the COVID-19 pandemic: a systematic review. Drug Alcohol Depend. 229:109150.

Robin AM, Hersh AR, John C, Caughey AB (2021). Cost effectiveness of buprenorphine vs. methadone for pregnant people with opioid use disorder. J Matern Fetal Neonatal Med. 35(25):4918–26. doi:10.1080/14767058.2021.1873266.

Robinson T, Ali MU, Easterbrook B, Hall W, Jutras-Aswad D, Fischer B (2023). Riskthresholds for the association between frequency of cannabis use and the development of psychosis: a systematic review and meta-analysis. Psychol Med. 53:3858–68.

Roerecke M, Rehm J (2010). Irregular heavy drinking occasions and risk of ischemic heart disease: a systematic review and meta-analysis. Am J Epidemiol. 171:633–44.

Roerecke M, Rehm J (2011). Ischemic heart disease mortality and morbidity in former drinkers: a meta-analysis. Am J Epidemiol. 173:245–58.

Roerecke M, Rehm J (2012). The cardioprotective association of average alcohol consumption and ischaemic heart disease: a systematic review and meta-analysis. Addiction. 107:1246–60.

Roerecke M, Rehm J (2014). Alcohol consumption, drinking patterns, and ischemic heart disease: a narrative review of meta-analyses and a systematic review and meta-analysis of the impact of heavy drinking occasions on risk for moderate drinkers. BMC Med. 12:182.

Roerecke M, Vafaei A, Hasan OSM, Chrystoja BR, Cruz M, Lee R et al. (2019). Alcohol consumption and risk of liver cirrhosis: a systematic review and meta-analysis. Am J Gastroenterol. 114:1574–86.

Room R, Cook M, Laslett A-M (2022). Substance use and the Sustainable Development Goals: will development bring greater problems? Drugs: Educ Prev Policy. Nov:1–10.

Room R, Rehm J (2023). "Harm per litre" as a concept and a measure in studying determinants of relations between alcohol consumption and harm. Int J Drug Policy. 115:104006.

Rorabaugh WJ (1981). The alcoholic republic: an American tradition. New York (NY): Oxford University Press.

Rumgay H, Shield K, Charvat H, Ferrari P, Sornpaisarn B, Obot I et al. (2021). Global burden of cancer in 2020 attributable to alcohol consumption: a population-based study. Lancet Oncol. 22:1071–80. doi: 10.1016/s1470-2045(21)00279-5.

Rönkä S, Karjalainen K, Martikainen P, Mäkelä P (2017). Social determinants of drug-related mortality in a general population. Drug Alcohol Depend. 181:37–43.

Saha S, Lim CC, Degenhardt L, Cannon DL, Bremner M, Prentis F et al. (2022). Comorbidity between mood and substance-related disorders: a systematic review and meta-analysis. Aust N Z J Psychiatry. 56(7):757–70. doi:10.1177/00048674211054740.

Saitz R, Bair-Merritt MH, Levy SJ (2021). Screening for young adults for illicit drug use: a good idea although evidence is lacking. Pediatrics. 147(Suppl 2):S259–61. doi: 10.1542/peds.2020-023523I.

Samokhvalov AV, Irving H, Rehm J (2010a). Alcohol consumption as a risk factor for pneumonia: a systematic review and meta-analysis. Epidemiol Infect. 138:1789–95.

Samokhvalov AV, Irving H, Mohapatra S, Rehm J (2010b). Alcohol consumption, unprovoked seizures, and epilepsy: a systematic review and meta-analysis. Epilepsia. 51:1177–84.

Samokhvalov AV, Rehm J, Roerecke M (2015). Alcohol consumption as a risk factor for acute and chronic pancreatitis: a systematic review and a series of meta-analyses. EBioMedicine. 2:1996–2002.

Sargent JD, Babor TF (2020). The relationship between exposure to alcohol marketing and underage drinking Is causal. J Stud Alcohol Drugs. Suppl. 19:113–24. doi: 10.15288/jsads.2020.s19.113.

Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption – II. Addiction. 88(6):791–804. doi: 10.1111/j.1360-0443.1993.tb02093.x.

Scheideler JK, Klein WMP (2018). Awareness of the link between alcohol consumption and cancer across the world: a review. Cancer Epidemiology, Biomarkers & Prevention. 27:429–37. doi: 10.1158/1055-9965.Epi-17-0645.

Schmidt RA, Genois R, Jin J, Vigo D, Rehm J, Rush B (2021). The early impact of COVID-19 on the incidence, prevalence, and severity of alcohol use and other drugs: a systematic review. Drug Alcohol Depend. 228:109065. doi: https://doi.org/10.1016/j.drugalcdep.2021.109065.

Scott-Sheldon LA, Carey KB, Cunningham K, Johnson BT, Carey MP, Team MR (2016) Alcohol use predicts sexual decision-making: a systematic review and meta-analysis of the experimental literature. AIDS Behav. 20:19–39.

Shearer J, Tie H, Byford S (2015). Economic evaluations of contingency management in illicit drug misuse programmes: a systematic review. Drug Alcohol Rev. 34(3):289–98. doi:10.1111/dar.12240.

Shield KD, Chrystoja BR, Ali S, Sohi I, Rehm J, Nigatu YT et al. (2022). Changes in alcohol consumption in Canada during the COVID-19 pandemic: associations with anxiety and self-perception of depression and loneliness. Alcohol Alcohol. 57(2):190–7. doi: 10.1093/alcalc/agab055.

Shield KD, Gmel G, Gmel G, Mäkelä P, Probst C, Room R et al. (2017). Life-time risk of mortality due to different levels of alcohol consumption in seven European countries: implications for low-risk drinking guidelines. Addiction. 112:1535–44.

Shield KD, Rehm J (2012). Difficulties with telephone-based surveys on alcohol consumption in high-income countries: the Canadian example. Int J Methods Psychiatr Res. 21:17–28.

Shield KD, Rehm J (2015). Russia-specific relative risks and their effects on the estimated alcohol-attributable burden of disease. BMC Public Health. 15:482.

Shover CL, Humphreys K (2019). Six policy lessons relevant to cannabis legalization. Am J Drug Alcohol Abuse. 45(6):698–706. doi: 10.1080/00952990.2019.1569669.

Simet SM, Sisson JH (2015). Alcohol's effects on lung health and immunity. Alcohol Res. 37:199.

Singal AK, Anand BS (2007). Mechanisms of synergy between alcohol and hepatitis C virus. J Clin Gastroenterol. 41:761–72. doi: 10.1097/MCG.0b013e3180381584.

Smart RG, Mann RE (2000). The impact of programs for high-risk drinkers on population levels of alcohol problems. Addiction. 95:37–52.

Sohi I, Chrystoja BR, Rehm J, Wells S, Monteiro M, Ali S et al. (2022). Changes in alcohol use during the COVID-19 pandemic and previous pandemics: a systematic review. Alcohol Clin Exp Res. 46(4):498–513.

Stockings E, Tran LT, Santo T, Peacock A, Larney S, Santomauro D et al. (2019). Mortality among people with regular or problematic use of amphetamines: a systematic review and meta-analysis. Addiction. 114:1738– 50.

Stockwell T, Zhao J, Sherk A, Rehm J, Shield K, Naimi T (2018). Underestimation of alcohol consumption in cohort studies and implications for alcohol's contribution to the global burden of disease. Addiction. 113:2245–49.

Strang J, Volkow ND, Degenhardt L, Hickman M, Johnson K, Koob GE et al. (2020). Opioid use disorder. Nat Rev Dis Primers. 6:3.

Sun Q, Xie W, Wang Y, Chong F, Song M, Li T et al. (2020). Alcohol consumption by beverage type and risk of breast cancer: a dose-response meta-analysis of prospective cohort studies. Alcohol Alcohol. 55:246–53.

Swensen ID (2015). Substance-abuse treatment and mortality. J Public Econ. 122:13–30.

Tanahashi T (1978). Health service coverage and its evaluation. Bull World Health Organ. 56(2):295–303 (http://www.ncbi.nlm.nih.gov/pubmed/96953, accessed 20 November 2023).

Tavitian-Exley I, Vickerman P, Bastos FI, Boily M-C (2015). Influence of different drugs on HIV risk in people who inject: systematic review and meta-analysis. Addiction. 110(4):572–84.

Taylor B, Irving HM, Kanteres F, Room R, Borges G, Cherpitel C et al. (2010). The more you drink, the harder you fall: a systematic review and meta-analysis of how acute alcohol consumption and injury or collision risk increase together. Drug Alcohol Depend. 110(1–2):108–16.

Toce MS, Chai PR, Burns MM, Boyer EW (2018). Pharmacologic treatment of opioid use disorder: a review of pharmacotherapy, adjuncts, and toxicity. J Med Toxicol. 14:306–22.

Tomaz V, Moreira D, Souza Cruz O. Criminal reactions to drug-using offenders: a systematic review of the effect of treatment and/or punishment on reduction of drug use and/or criminal recidivism. Front Psychiatry. 2023;14:935755. doi: 10.3389/fpsyt.2023.935755.

Traphagen N, Tian Z, Allen-Gipson D (2015). Chronic ethanol exposure: pathogenesis of pulmonary disease and dysfunction. Biomolecules. 5:2840–53.

Trocki C (1999). Opium, empire and the global political economy: a study of the Asian opium trade 1750–1950. London and New York: Routledge.

UN (2011). Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. Resolution adopted by the General Assembly on 19 September 2011: A/RES/66/2. New York (NY): United Nations (https://digitallibrary.un.org/record/710899, accessed 13 November 2023).

UN (2015). Sustainable Development Goals (Website). 17 Goals to transform our world. New York (NY): United Nations (https://www.un.org/sustainabledevelopment/, accessed 22 February 2024).

UN (2015). Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly Resolution A/RES/70/1, adopted 25 September 2015. New York (NY): United Nations (https://sustainabledevelopment.un.org/post2015/transformingourworld/publication, accessed 25 February 2024).

UN (2017). Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. New York (NY): United Nations (https://unstats.un.org/sdgs/indicators/indicators-list/, accessed 25 February 2024).\

United Nations Department of Economic and Social Affairs (2022). UN World Population Prospects: the 2022 revision. New York (NY): United Nations (https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html, accessed 10 January 2022).

United Nations World Tourism Organization (2022). UNWTO Tourism data dashboard. Madrid: United Nations World Tourism Organization.

UNODC & WHO (2019). Treatment and care for people with drug use disorders in contact with the criminal justice system: alternatives to conviction or punishment. Vienna & Geneva: United Nations Office on Drugs and Crime & World Health Organization (https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC_WHO_Alternatives.pdf, accessed 25 February 2024).

UNODC (2023). World Drug Report 2023. Vienna: United Nations Office on Drugs and Crime (https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html, accessed 25 February 2024).

Vang O, Ahmad N, Baile CA, Baur JA, Brown K, Csiszar A et al. (2011). What is new for an old molecule? Systematic review and recommendations on the use of resveratrol. PloS One. 6:e19881.

Vieira A, Abar L, Chan D, Vingeliene S, Polemiti E, Stevens C et al. (2017). Foods and beverages and colorectal cancer risk: a systematic review and meta-analysis of cohort studies, an update of the evidence of the WCRF-AICR Continuous Update Project. Ann Oncol. 28:1788–1802.

Volkow N, Blanco C (2023). Substance use disorders: a comprehensive update of classification, epidemiology, neurobiology, clinical aspects, treatment and prevention. World Psychiatry. 22:203–29.

Volkow ND, Torrens M, Poznyak V, Sáenz E, Busse A, Kashino W et al. (2020). Managing dual disorders: a statement by the Informal Scientific Network, UN Commission on Narcotic Drugs. World Psychiatry. 19:396–7.

Vos T, Lim SS, Abbafati C, Abbas KM, Abbasi M, Abbasifard M et al. (2020a). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 396(10258):1204–22.

Vos T, Lim SS, Abbafati C, Abbas KM, Abbasi M, Abbasifard M et al. (2020b). Appendix 1: Methods, pp1074–1102. Supplement to Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020; 396: 1204–22.

Weerasinghe A, Schoueri-Mychasiw N, Vallance K, Stockwell T, Hammond D, McGavock J et al. (2020). Improving knowledge that alcohol can cause cancer is associated with consumer support for alcohol policies: findings from a real-world alcohol labelling study. Int J Environ Res Public Health. 17. doi: 10.3390/ijerph17020398.

WHO (1992). The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines. Geneva: World Health Organization (https://www.who.int/publications/i/item/9241544228, accessed 16 October 2023).

WHO (1994). Lexicon of alcohol and drug terms. Geneva: World Health Organization (https://www.who.int/publications/i/item/9241544686, accessed 27 November 2023).

WHO (1998). WHO Expert Committee on Drug Dependence, thirtieth report. Geneva: World Health Organization (WHO Technical Report Series, No. 873).

WHO (1999). Global status report on alcohol. Geneva: World Health Organization (https://cdn.who.int/media/docs/default-source/substance-use/globalalcohol-overview.pdf, accessed 26 January 2024).

WHO (2001). Brief Intervention for Hazardous and Harmful Drinking (AUDIT): a manual for use in primary care. Geneva: World Health Organization https://www.who.int/publications/i/item/brief-intervention-for-hazardous-and-harmful-drinking-(audit), accessed 27 November 2023).

WHO (2001a). Global status report: alcohol and young people. Geneva, World Health Organization (https://www.who.int/publications/i/item/global-status-report-alcohol-and-young-people, accessed 26 January 2024).

WHO (2004). Global status report on alcohol 2004. Geneva, World Health Organization (https://www.who.int/publications/i/item/global-status-report-on-alcohol-2004, accessed 26 January 2024).

WHO (2004a). Neuroscience of psychoactive substance use and dependence. Geneva: World Health Organization (https://www.who.int/publications/i/item/neuroscience-of-psychoactive-substance-use-and-dependence, accessed 25 February 2024).

WHO (2005). WHO STEPS surveillance manual: the WHO STEPwise approach to chronic disease risk factor surveillance. Geneva: World Health Organization (https://apps.who.int/iris/bitstream/handle/10665/43376/9241593830_eng.pdf, accessed 16 October 2023).

WHO (2007). Expert Committee on Problems Related to Alcohol Consumption, Second report. Geneva: World Health Organization. WHO Technical Report Series, No. 944 (https://www.who.int/publications/i/item/9789241209441, accessed 19 October 2023).

WHO (2009). Alcohol and injuries: emergency department studies in an international perspective. Geneva: World Health Organization.

WHO (2009a). Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241547543, accessed 27 November 2023).

WHO (2010). Atlas on substance use: resources for the prevention and treatment of substance use disorders. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241500616, accessed 27 November 2023).

WHO (2010a). Global strategy to reduce the harmful use of alcohol. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241599931, accessed 25 February 2024).

WHO (2010b). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization.

WHO (2010c). The ASSIST-linked brief intervention for hazardous and harmful substance use: manual for use in primary care. Geneva: World Health Organization (https://www.who.int/publications/i/item/the-assist-linked-brief-intervention-for-hazardous-and-harmful-substance-use, accessed 27 November 2023).

WHO (2010d). The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): manual for use in primary care. Geneva: World Health Organization (https://www.who.int/publications/i/item/978924159938-2, accessed 10 January 2024).

WHO (2011). Global status report on alcohol and health. Geneva: World Health Organization (https://www.who.int/publications/i/item/global-status-report-on-alcohol-and-health-2011, accessed 26 January 2024).

WHO (2013). Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241506236, accessed 25 February 2024).

WHO (2013a). World health report 2013: research for universal health coverage. Geneva: World Health Organization (http://www.who.int/whr/en/, accessed 23 November 2023).

WHO (2014). Global status report on alcohol and health 2014. Geneva: World Health Organization (https://www.who.int/publications/i/item/global-status-report-on-alcohol-and-health-2014, accessed 26 January 2024).

WHO (2014a). Guidelines for community management of opioid overdose. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241548816, accessed 25 November 2023).

WHO (2015). Global Status Report on Road Safety 2015. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241565066, accessed 25 February 2024).

WHO (2016). The health and social effects of nonmedical cannabis use. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241510240, accessed 21 April 2024).

WHO (2018). Global status report on alcohol and health. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241565639, accessed 5 May 2024).

WHO (2019). mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP) – version 2.0. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789241549790, accessed 27 November 2023).

WHO (2019a). The SAFER technical package: five areas of intervention at national and subnational levels. Geneva: World Health Organization (https://www.who.int/initiatives/SAFER, accessed 19 October 2023).

WHO (2019b). Rehabilitation Competency Framework, Geneva, 12 September 2019. Geneva: World Health Organization (https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/rehabilitation-competency-framework, accessed 27 November 2023).

WHO (2020). The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment. Geneva: World Health Organization (https://www.who.int/publications/i/item/978924012455, accessed 1 February 2024).

WHO (2021). WHO global report on trends in prevalence of tobacco use 2000–2025, fourth edition. Geneva: World Health Organization (https://iris.who.int/bitstream/handle/10665/348537/9789240039322-eng.pdf, accessed 25 February 2024).

WHO (2022). Mental health and COVID-19: early evidence of the pandemic's impact. Scientific brief. Geneva: World Health Organization (https://www.who.int/teams/mental-health-and-substance-use/mental-health-and-covid-19, accessed 1 February 2024).

WHO (2022a). Reducing the harm from alcohol by regulating cross-border alcohol marketing, advertising and promotion: a technical report. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789240046504, accessed 19 October 2023).

WHO (2022b). WHO Discussion Paper (dated 8 June 2022). Draft updated Appendix 3 of the WHO Global NCD Action Plan 2013–2020. Geneva: World Health Organization (https://cdn.who.int/media/docs/default-source/ncds/mnd/2022_discussion_paper_final.pdf?sfvrsn=78343686_7, accessed November 7, 2023).

WHO (2023). Mental health, human rights and legislation: guidance and practice. Geneva: World Health Organization and the United Nations (represented by the Office of the United Nations High Commissioner for Human Rights); 2023 (https://www.who.int/publications/i/item/9789240080737, accessed 27 November 2023).

WHO (2023a). Universal health coverage (UHC). Fact sheet. Geneva: World Health Organization (https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc), accessed 27 November 2023).

WHO (2023b). WHO report on the global tobacco epidemic, 2023: protect people from tobacco smoke. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789240077164, accessed 25 February 2024).

WHO (2023c). World Health Statistics 2023: Monitoring health for the SDGs. Geneva: World Health Organization; 2005 (https://www.who.int/data/gho/publications/world-health-statistics, accessed 16 October 2023).

WHO (2023d). Commercial determinants of health. Geneva: World Health Organization. (https://www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health, accessed 25 February 2024).

WHO (2023e). Mental Health Gap Action Programme (mhGAP) guideline for mental, neurological and substance use disorders. Geneva: World Health Organization (https://www.who.int/publications/i/item/9789240084278, accessed 16 January 2024).

WHO (2023f). World Health Organization Model List of Essential Medicines – 23rd List, 2023. In: The selection and use of essential medicines 2023: Executive summary of the report of the 24th WHO Expert Committee on the Selection and Use of Essential Medicines, 24–28 April 2023. Geneva: World Health Organization (https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2023.02, accessed 24 January 2024).

WHO (2024). Global alcohol action plan 2022-2030. Geneva: World Health Organization. Licence: CC BY-NC-SA 3.0 IGO.

WHO (2024a). ICD-11 for Mortality and Morbidity Statistics. Geneva: World Health Organization (https://icd.who.int/browse/2024-01/mms/en).

WHO EURO (2020). Alcohol consumption and sustainable development: fact sheet on Sustainable Development Goals (SDGs): health targets. Copenhagen: World Health Organization Regional Office for Europe (https://www.who.int/europe/publications/i/item/WHO-EURO-2020-2370-42125-58041, accessed 1 February 2024).

WHO/UNODC (2020). International standards for the treatment of drug use disorders: revised edition incorporating results of field-testing. Geneva: World Health Organization and United Nations Office on Drugs and Crime; 2020 (https://www.who.int/publications/i/item/international-standards-for-the-treatment-of-drug-use-disorders, accessed 27 November 2023).

World Health Organization (2015). Technical Advisory Group on Alcohol and Drug Epidemiology meeting report (unpublished). Geneva: World Health Organization.

World Health Organization (2020a). WHO methods and data sources for country-level causes of death 2000–2019. Global Health Estimates technical paper: WHO/DDI/DNA/GHE/2020.2 (https://www.who.int/docs/default-source/gho-documents/global-health-estimates/ghe2019_cod_methods.pdf?sfvrsn=37bcfacc_5, accessed 4 April 2024).

World Health Organization (2020b). WHO methods and data sources for global burden of disease estimates 2000-2019 (Global Health Estimates technical paper WHO/ DDI/DNA/GHE/2020.3) (https://cdn.who.int/media/docs/default-source/gho-documents/global-health-estimates/ghe2019_daly-methods.pdf, accessed 13 May 2024).

Williams RS, Ribisl KM (2012). Internet alcohol sales to minors. Arch Pediatr Adolesc Med. 166(9):808–13. doi: archpediatrics.2012.265 [pii] 10.1001/archpediatrics.2012.265.

Wood AM, Kaptoge S, Butterworth AS, Willeit P, Warnakula S, Bolton T et al. (2018). Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599 912 current drinkers in 83 prospective studies. Lancet. 391:1513–23.

World Cancer Research Fund/American Institute for Cancer Research (2018). Diet, nutrition, physical activity and cancer: a global perspective. In series: Diet, nutrition, physical activity and cancer: a global perspective. Continuous Update Project expert report. London.

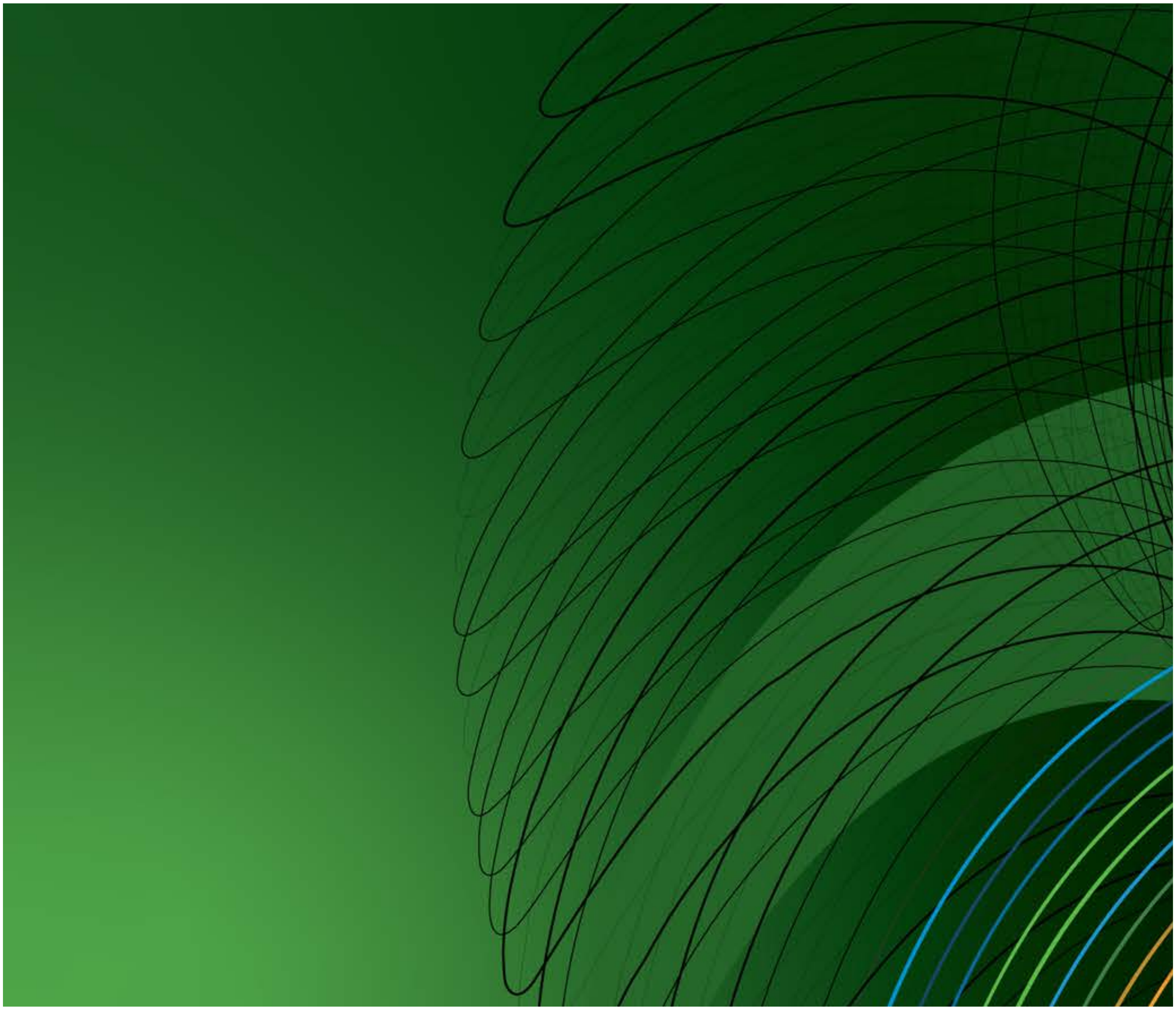
Xu HQ, Wang CG, Zhou Q, Gao YH. (2021). Effects of alcohol consumption on viral hepatitis B and C. World J Clin Cases. 9(33):10052–10063.

Yadav D, Lowenfels AB (2013). The epidemiology of pancreatitis and pancreatic cancer. Gastroenterology. 144:1252–61.

Zaridze D, Brennan P, Boreham J, Boroda A, Karpov R, Lazarev A et al. (2009). Alcohol and cause-specific mortality in Russia: a retrospective case–control study of 48 557 adult deaths. Lancet. 373:2201–14.

Zarkin GA, Orme S, Dunlap LJ, Kelly SM, Mitchell SG, O’Grady KE et al. (2020). Cost and cost-effectiveness of interim methadone treatment and patient navigation initiated in jail. Drug Alcohol Depend. 1:217:108292. doi:10.1016/j.drugalcdep.2020.108292.

Zur RM, Zaric GS. A microsimulation cost-utility analysis of alcohol screening and brief intervention to reduce heavy alcohol consumption in Canada. Addict Abingdon Engl. 2016;111(5):817–31. doi:10.1111/add.13201.



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